The American Artisan
And Hardware Record

Vol. 57. No. 18. CHICAGO, MAY 1, 1909 $2.00 Per Year.

All Kinds of
BOLTS, RIVETS, NUTS, WASHERS, CARRIAGE FORGINGS, ETC.
Send for 1909 Catalog "R." Prices on Application.
COLUMBUS BOLT WORKS, Columbus, Ohio

GET THE LIVE LINE
"AMERICAN SEAL"
Elastic Oil Roofing Cement,
Stove Putty and Asbestos
Furnace Cement
For Furnaces, Stoves, Ranges and Roofs.
Jobbers write to-day for prices
THE Wm. Connors Paint Mfg. Co.
Makers TROY, N. Y.
Western Agents: Friedly-Voshardt Co., 194 Mather St., Chicago, Ill.
Southwestern Agents: Stockhoff Supply Co., 107 N. Main St., St. Louis, Mo.

This Space for Sale.
Inquire of Daniel Stern,
355 Dearborn St., Chicago

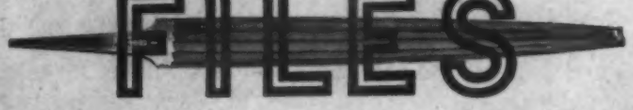
MATCHLESS
Spring and Pivot Hinges, Floor Hinges, Jamb Hinges and Hardware Specialties
The Matchless Jamb Hinge is well made of either steel, brass or bronze metal, single and double acting, in all sizes and finishes—for light and heavy doors. Our goods are all of the highest quality. If your jobber cannot furnish them, write us.
LAWSON MFG. COMPANY
40 Dearborn Street, CHICAGO, ILL.

WORLD'S BEST
TUBULAR TRACK
DOOR HANGER
Our Track has the SLIDABLE Bracket, the feature that has made World's Best Hangers so popular with the Building Trade.
Write for Catalog and Prices.
SAFETY DOOR HANGER CO.
Ashland, Ohio, U. S. A.

"NEVER-BREAK"
TRADE MARK

Catalog Free
"NEVER-BREAK"
STEEL SPIDERS, GRIDDLES AND KETTLES
WILL NOT Scale Off like cheap enamel.
WILL NOT Scorch or Burn like light fry pans and skillets.
WILL NOT Absorb Grease or Flavors like cast iron.
THE AVERY STAMPING CO.
CLEVELAND, OHIO
Sole Manufacturers
"NEVER-BREAK" Goods

SEE PAGE 64



Sperry's
Steam Kettles
Made from very thick metal, without Stay Bolts, joint packed in such a manner as to never need repacking. A little higher priced than some, but they are safe and tight.

D. R. Sperry & Co. Hollow-ware Founders **Batavia, Ill.**

"EVEN AS CORN ON THE COB"

This is the way the fire burns in

A Sunbeam Reflector Stove

"Burn High—Burn Low—It's even So."

THE REFLECTOR

Has an additional "wrinkle" not seen in the copper. ¶ It is a "Scientific Wrinkle" that gives this stove its extra quantity of reflecting area.

THE BODY

Is made, practically of one piece of Wellsville Steel, and its "make-up" gives this stove extra strength—it keeps *its shape*.

THE BURNER

Is made of drilled wrought iron pipe (not punched), and it will not split, because the pipe is not injured by punching. ¶ The Lava Burner Tips are set without packing or caulking of any kind, and can't come out.

THE LAVA TIPS

Are positively the highest grade made in Germany, from Lava found in the Pine Mountains of that country.

We Have Some "Jobbing Territory" Open.

You will be "Fighting" for the Agency of this stove in 1910 unless you secure it this year.

STOVE & RANGE CO. OF PITTSBURGH

GOOD VALUES IN STOVES.

PITTSBURGH, PENNSYLVANIA

The Kelsey Agency A Good Proposition

When it comes down to considering what heater will give the very best results in warm air heating, you can depend upon it that there's nothing better than the **Kelsey Warm Air Generator.**

With the Kelsey you can take contracts for the finest and largest houses, and for churches and school buildings, with the assurance that you can heat them a good deal better than they could be heated with any furnace.

There's no guess work about this; there's enough evidence about Kelsey results to convince the most skeptical that **Kelsey heating is not only satisfactory heating, but is the most healthful, economical and easily managed system extant for the purposes named.**

The Kelsey Warm Air Generator

accomplishes results which cause the users to recommend for the very good reasons that it has double the weight and heating surfaces of the ordinary furnace; warms air by a much better method, warms larger volumes of air and forces to every room in the building.

If you have not investigated the Kelsey why not send for the Kelsey book and 112 page book **"Opinions,"** and for the book "Kelsey Heating Methods." You might then be convinced that the 800 Dealers who are pushing Kelsey Sales are doing so because they believe there's no better heating proposition.

KELSEY HEATING CO., Syracuse, N. Y.

NEW YORK: 156 Fifth Ave. PHILADELPHIA: 24 So. 7th St.
CHICAGO: Van Evera & Lewis Mfg. Co., 104-106 W. Lake St
James Smart Mfg. Co., BROCKVILLE, Ont., Sole Makers for Canada

Mr. Dealer

Have you placed your order for

"THE MONITOR"

Five Front Flue

RADIATOR

(FOR HARD COAL)

Monitor Radiator
FRONT VIEW

Monitor Radiator
SECTIONAL VIEW

Illustrating the line of travel of the fire and heated air, showing the increased radiation furnished by this construction. Incased hot air flues. Baffle Plate between the fire pot and radiating flues. Location of grates and ash pan and the equal distribution of heat.

WE GUARANTEE

1683 square inches more Radiating surface than any Base Burner made

IT SELLS

and is the Best Business Producer today for you to put on your sample floor.

MANUFACTURED BY

The Monitor Stove and Range Co.

CINCINNATI, OHIO

DISTRIBUTORS

For the State of Michigan: MORLEY BROS., Saginaw, Mich.

For the State of Minnesota and Northwest; THE GREAT WESTERN STOVE AND REPAIR CO., Minneapolis, Minn.

For the State of Wisconsin: MORLEY MURPHY HARDWARE CO., Green Bay, Wis.

For the State of Nebraska, Wyoming, Western Iowa and the Black Hills: PAXTON & GALLAGHER CO., Omaha, Neb.

"QUICK MEAL"
EVAPORATING STOVES

Have proven so thoroughly satisfactory that they are the first choice of all the dealers selling evaporating gasoline stoves.

For a medium priced Gasoline Stove the new "QUICK MEAL" Giant Burner is constructed on an entirely new principle, doing away with the Drip Cup thus preventing the Generator Head from clogging up with soot or other sediment. Simplicity is one of its best features.

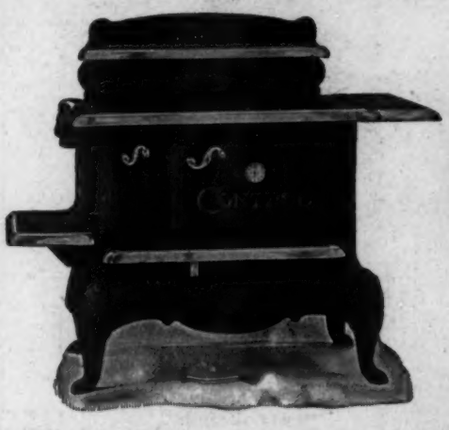
NOTE—"Quick Meal" Steel Ranges and "Quick Meal" Gasoline Stoves make a complete line for all seasons

RINGEN STOVE CO.
DIVISION OF AMERICAN STOVE CO.

ST. LOUIS, MO.

SAN FRANCISCO, CAL. **Indiana St., Between 20th and 21st.**

1909 CATALOGUE ON REQUEST



The Greatest Coke Burning Stove the World Ever Saw

CONTROL

IT WILL BURN COAL AS WELL

Send for Booklet for full particulars

Albany Foundry Company, Albany, N. Y.

No. 80.

SEND FOR CATALOGUE 14 AND DISCOUNT SHEET.

"DETROIT" OVEN
A Perfect Success.

SPECIAL FEATURES

Attractive and **handsome** design. V-shaped deflector conducts heat direct from burner into the oven. Large flues to equalize the heat in oven. Results: **Quick baking** on **top** and **bottom** alike.

DURABLE AND FUEL SAVER

The Price and Quality will Interest you.

The above cut shows the construction of our "Detroit" Oven.

Manufactured by . . . **The Detroit Vapor Stove Co., Detroit, Mich.**

Munsell's Mica

EUGENE MUNSELL & CO.
NEW YORK AND CHICAGO

THE STANDARD FOR HIGH GRADE STOVES

GAS RANGES
COOKERS

Get Catalog 21. Just out.

ODIN

HOT PLATES
HEATERS

ODIN STOVE MFG. CO.
ERIE, PENNA.

BANNER QUALITY

This is a range of unquestioned merit and individuality.

It is handsomely designed, made of the best materials, free from defects of any nature and carefully and honestly constructed—in fact a first-class range in all respects.

It will sell because it is just what your customers want, a range that can be depended upon at all times, a range that sel s at a price which is right and a range that cooks and bakes to perfection.

Mr. Dealer—You should handle it, there's money in it for you. Write for further particulars.

Quality Stove & Range Co., Belleville, Ill.

OUR 400 SERIES

PENN ESTHER CABINET BASE RANGE

PENN

Made with either Right Hand or Left Hand Oven.

Has large water-front; Duplex Grates; Handsome Nickel Trimmings; Thermometer in oven door. Can be had with or without Steel High Shelf, Steel High Closet, or Low Closet.

Elegant Baking and plenty of Hot Water are assured.

Write for Catalog.

Registered Trade Mark

PENN

There are 508 Styles and Sizes of PENN ESTHER RANGES.

Mt. PENN STOVE WORKS READING, PA. 111-113 No. 2nd Street, PHILADELPHIA, PA.

Perfect Light for the Country Home

DETROIT Combination Gas Machine

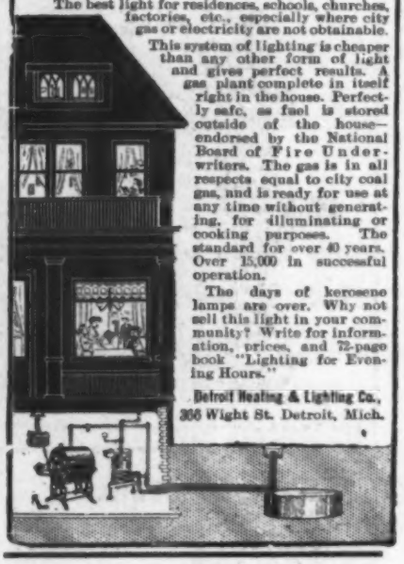
Here is a lighting system that not only means good profits for you but it will give the most satisfactory service to your customers.

The best light for residences, schools, churches, factories, etc., especially where city gas or electricity are not obtainable.

This system of lighting is cheaper than any other form of light and gives perfect results. A gas plant complete in itself right in the house. Perfectly safe, as fuel is stored outside of the house—endorsed by the National Board of Fire Underwriters. The gas is in all respects equal to city coal gas, and is ready for use at any time without generating, for illuminating or cooking purposes. The standard for over 40 years. Over 15,000 in successful operation.

The days of kerosene lamps are over. Why not sell this light in your community? Write for information, prices, and 72-page book "Lighting for Evening Hours."

Detroit Heating & Lighting Co., 366 Wight St. Detroit, Mich.



HERE'S A SNAP FOR WIDE-AWAKE RANGE DEALERS

I am going to sell 1000 400-lb. six-hole steel ranges finished in Japan for not over

$15.00 Each

I'll sell the ranges too, so you'd better get in line and order now. These Ranges formerly retailed at $60.00 each. Send me a carload order and get my best cash discount, or I'll give dating to firms with satisfactory credit. What better proposition can you ask for, if you have a little capital, are sufficiently enterprising, and want to make money? Do You Know there is a big demand for the "Willard" Steel Ranges because they give perfect satisfaction, and don't cost too much? Then why don't you supply them?

WILLARD STEEL RANGES

are advertised in many leading publications, and the people know them and want them. Get my prices—It means profit DOLLARS—to you. Every sale leads to another. I can sell you a better range than you can buy ANYWHERE for the money, one that cooks well and bakes evenly and perfectly, and will last a lifetime, with proper care. Tell me how many ranges you can sell annually and I will make you a very interesting proposition. Agents Wanted.

WM. G. WILLARD, No. 119 Willard Bldg., 520 Chestnut St., St. Louis, Mo.

CUT THIS OUT

To the Publishers

The American Artisan and Hardware Record
355 Dearborn Street, CHICAGO

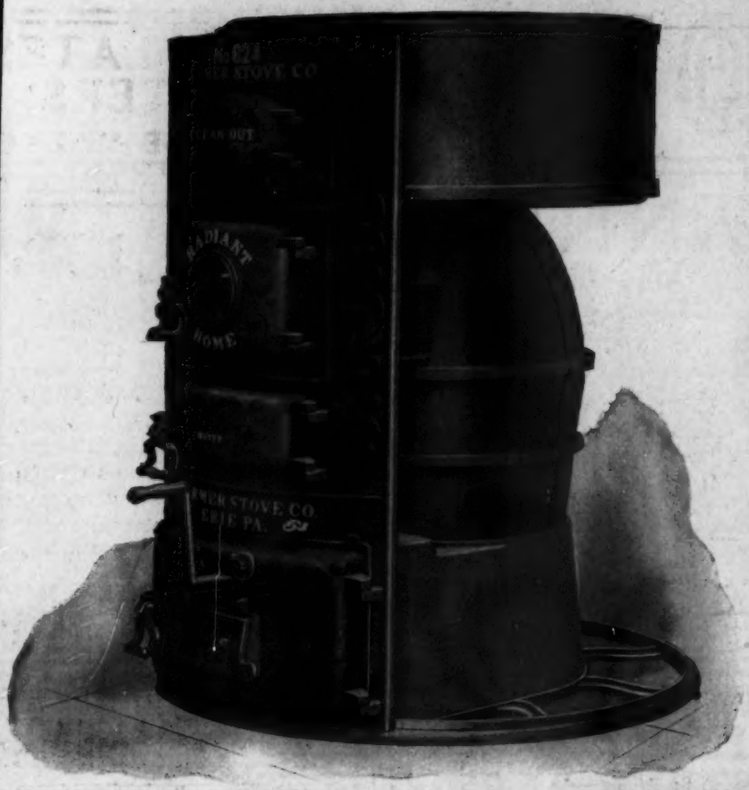
Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

Name .....

Address .....

Town ..... State .....

Radiant Home Furnaces



Three Sizes, Nos. 622, 624, 630.

For Hard Coal, Coke, Wood

Special Features:

Full Height Front
Making construction of casing simple All attendance on furnace given through large front, making casing very tight.

Fire Pot
Two-piece, and shaped so as to be nearly indestructible.

Grates
Triangular bars, hung in patent hanger. Each can be removed separately.

Dust Flue
Carrying dust from ash pit to fire pot, relieving radiator and smoke pipe.

Water Pan and Clean Out
Easy of access.

Especially Adapted to Low Cellars

For Soft Coal, Coke, Wood

Full Height Front
One Piece Cast Radiator
Interior Clean Out
Large Double Feed Doors
Guaranteed Air Blast Fire Pot
Patented Force Draft Ring
Triangular Grates
Patented Grate Hanger

Especially Adapted to Low Cellars

Four Sizes, Nos. 322, 324, 326, 328.

Germer Stove Company

235 Newberry Ave., CHICAGO, ILL. ERIE, PA.

Boynton's Square Pot Crusader Furnace.

WHY

Are Boynton's Square Pot Furnaces

Taking So Well with the Trade?

Because they not only have talking and selling points, but because these talking and selling points are **real points of merit** that will stand back of the dealer after he has sold and installed the apparatus.

Write Us for Our Catalogue and Full Description

GET IN LINE

BOYNTON FURNACE CO.

147-149 Lake Street, CHICAGO 207-209 Water Street, NEW YORK

THE FAULTLESS SCIENTIFIC HEATER

Has many unique features.

This cut illustrates the ash-pit and firepot.

The *ash pit* is different in shape and in construction from any other. *How* and *why* can be appreciated only by observation.

The *firepot* is not like any other. It is *sectional* and yet has a *grate surface equal* to the *fire* surface.

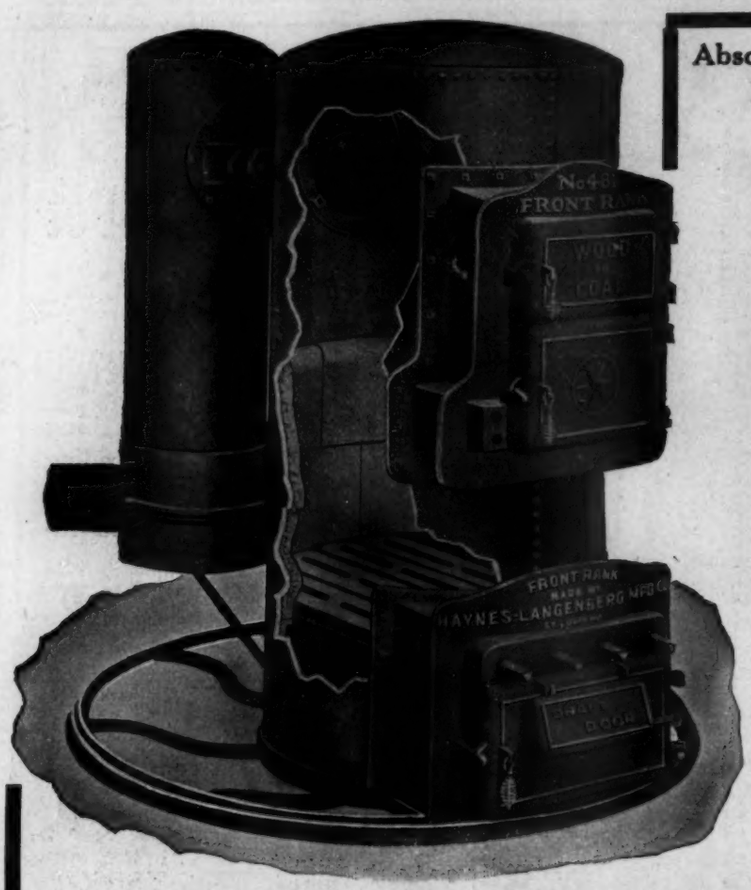
No pot so *effective* and *durable* has heretofore been made. Practical furnace men will see this point at once.

These pots are *much smaller* in proportion to the radiators than in any ordinary furnace.

There are many other reasons why this is the *best Heating apparatus* in the market.

Send for catalogue and prices. The Sole Agency is a good thing.

THE GRAFF FURNACE CO., 208 WATER STREET NEW YORK.



Absolutely Gas Tight. Perfect Combustion. No Direct Draft.
Burns Any Fuel.
Practical.
Sensible. Durable. Safe.

All Features of the

Front Rank Steel Furnace

"The Standard of the World."

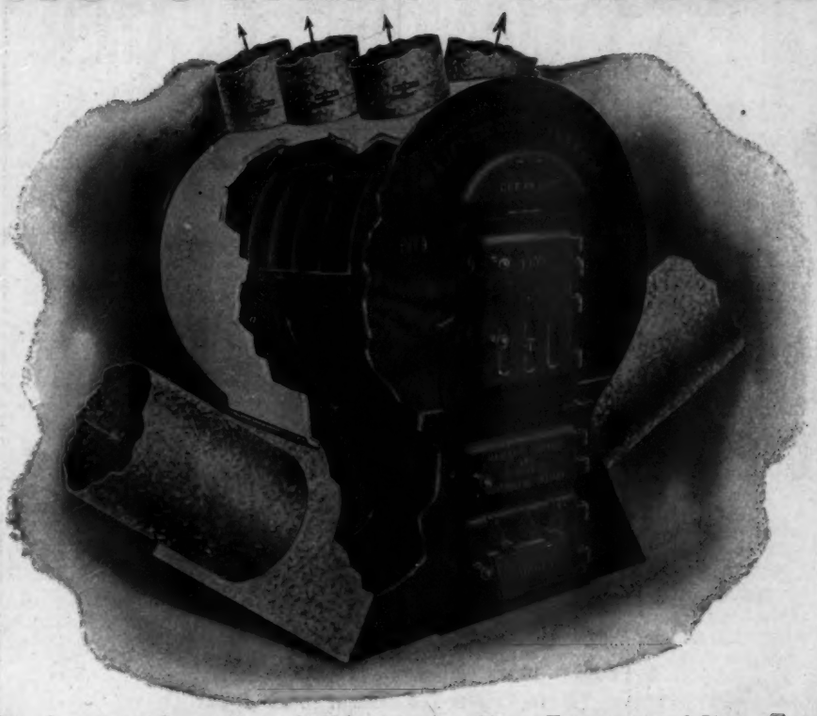
There is not a feature of merit in any modern furnace made that you will not find embodied in the construction of the FRONT RANK but there **are** meritorious features **in the FRONT RANK** that you will find in no other furnace on the market.

This furnace **always** satisfies, it **always** gives perfect service.

Haynes-Langenberg Mfg. Co.
4045-4057 Forest Park Blvd., ST. LOUIS, MO

The Agency Proposition we have to offer live dealers is an attractive one. Write us concerning it and for our catalog.

NO OTHER FURNACE LIKE IT



We offer an original and entirely new idea for generating warm air in the

MAJESTIC

WARM AIR HEATER

Its design and merits differ so widely from those of other makes that it makes a splendid specialty and each job installed helps sell another.

Its Construction

Made of the very best quality of No. 1 grey cast iron—no material will radiate a large volume of warm air as readily as cast iron. Burns hard coal, soft coal, coke or wood. Wood can be burned horizontally in combustion chamber on sectional flat wood grates which lay on top of fire pot; the furnace is low enough to be placed in a basement five and one-half feet deep. Cheap Furnaces and Cheap Furnace Work never gain a good reputation in warm air heating. **The Majestic agency is sure to win you a good reputation. Write for our Catalog today.**

MAJESTIC FURNACE & FOUNDRY CO., Huntington Indiana

NIAGARA
Furnace

MADE ENTIRELY OF CAST IRON

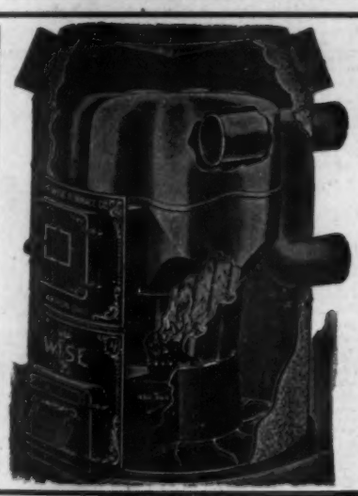
Strictly modern and up-to-date. Deep and roomy ASH PIT. THE GRATE is of the triangular bar dumping type. Two-piece FIRE POT, corrugated with deep cup joints. Cast iron RADIATOR. Equipped with DUST FLUE, has LARGE, WELL FITTING DOORS and ornamental SHIELD FRONT. **They can't be made better.**

WRITE FOR CATALOG.

FOREST CITY FOUNDRY & MANUFACTURING CO.

Cleveland, Ohio

Manufacturers of the Monarch, Imperial and Combination Furnaces, Registers, Mail Boxes, etc., etc.



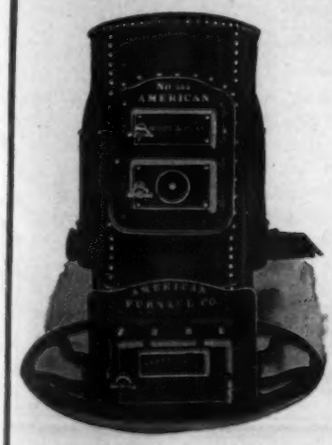
A Wise Selection

If you are looking for a furnace which will boom your business and make you prosperous, choose the

WISE

Dealers holding WISE Agencies are the most prosperous in the country. Write us today.

The Wise Furnace Co., Akron, O.



Both the Dealer's and the User's Interests

Have been considered in the construction of

American Furnaces

We have made a furnace that every dealer in every community can sell and guarantee. A furnace that is built upon Hygienic and Modern Principles and bound to satisfy the user in every particular.

Clean and Tight Like a Boiler

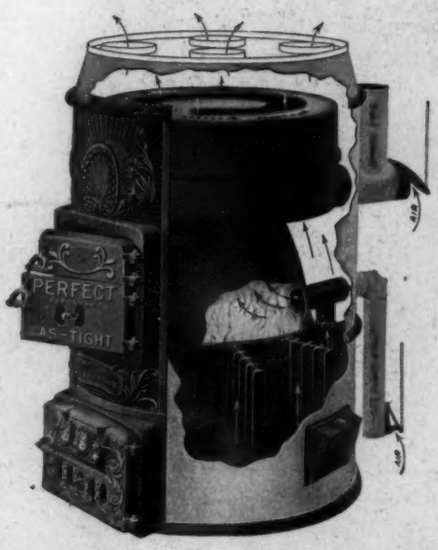
—our new method of riveting makes it so.

DEALERS: A Sample Furnace will be shipped to any responsible dealer in the United States and if after careful examination (we allow you 30 days) it does not prove entirely satisfactory, it can be returned at our expense.

WRITE FOR OUR CATALOG TODAY.

The American Furnace Co., 1911-15 Pine Street St. Louis, Mo.

They Don't Go Out Nights



Soft Coal Only

450 per cent. more fire-surface than other furnaces.

Feed Door

14 inches square

Richardson & Boynton Company

CHICAGO NEW YORK BOSTON

Made to Please and to Satisfy

We know that a furnace pipe to please the **Dealers** must be one with selling points of genuine merit. To please the **Furnace Men** it must be one that will save time and labor in erection. To please the **Customers** it must be absolutely safe and guarantee perfect ventilation as well as saving in fuel consumption.

Improved HANDY Furnace Pipe

will please and satisfy **Dealers, Furnace Men** and **Customers**—that's the way it is made. And it "costs no more than the kind you make."

Here is how they are constructed: Instead of the lap being made with two tongues (which is a faulty and time wasting feature of other makes of double pipe) we have made the lap with only one tongue; **therefore there is only one point of entrance.** One end of the pipe is made **5-8 of an inch larger than the other.** The slip is made **1 3-8 inches long** and arranged so that it tapers down and makes an **easy fitting and absolutely tight joint.** We use nothing but the very best tin procurable and guarantee a perfect job when **HANDY** Pipe is correctly erected.

We will be pleased to send Free Samples upon request. Write for our Illustrated Catalog and Trade Prices.

F. MEYER & BRO. CO.

PEORIA, ILLINOIS

YOU MAY CLAIM YOU CANNOT SELL GOODS OF QUALITY—WE SAY YOU CAN

IT can be done by explaining to your customer why the article costs more than one of inferior make —show him where he is getting his money's worth for the higher price he pays.

Apply this rule to your heating business by selling MUELLER Furnaces—explain that they are worth more than others because they are guaranteed to contain more direct heating surface than any other heater made, which means economy and power.

They are fuel savers — saving fuel saves money.

Durability is one of the MUELLER strong points—many MUELLER Furnaces having been in constant use for over 25 years, without repair and still giving satisfaction.

L. J. MUELLER FURNACE COMPANY

Established 1857 — 191 Reed Street, Milwaukee, Wis.

Where Quality Rather Than Cheapness Is Considered

Floral City Furnaces

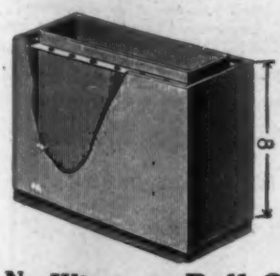
Continue To Lead

We have never catered to the demand for a cheap furnace because it is our belief that the BEST is none too good and that no responsible dealer can afford to risk his business reputation by handling other than the best. Any dealer will find in FLORAL CITY FURNACES a line that will satisfy his most discriminating customers. Made in any size or style, strictly up to date, every one of them, and perfect in construction and operation.

Write for Our Handsome Catalog

Monroe Foundry & Furnace Co.

Monroe, Michigan



The MICHIGAN SAFETY FURNACE PIPE COMPANY

Corner Brooklyn and Abbott Streets,

DETROIT, MICHIGAN.

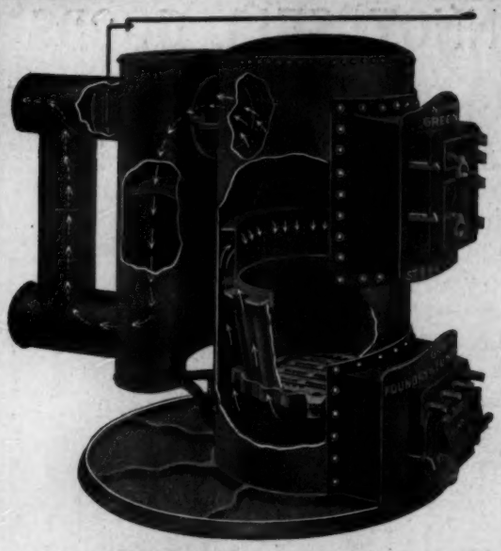
The STIFFEST and BEST Machine-made Pipe on the Market.

The only Sectional Furnace Pipe made in which the inner Walls Form the Cross Walls.

No Wings to Pull Out. — WRITE FOR CATALOG. — No Cleats to Bend.

OUR LARGE FACTORY INSURES PROMPT DELIVERY

DO NOT GET US CONFUSED WITH OTHER MANUFACTURERS



LINCOLN STOVE REPAIR CO., Lincoln, Nebraska.
State Managers for Nebraska.

ROWE CONSTRUCTION & HEATING CO., Watertown, S. D.
State Managers for South Dakota.

Do You Know Why People are buying Green's Base Heater Furnace?

Because it gives more heat with less fuel than is required to operate the average furnace.

The carbon and gases passing off unconsumed from soft coal mean just that much money lost up the chimney. By burning this carbon and converting it into heat, it not only does away with the smoke nuisance, but reduces the amount of fuel necessary to secure the desired heat, consequently a big saving in coal is effected. It is not the money paid for the furnace when installed which constitutes the cost, but the amount of fuel it consumes after it is in operation. The slotted fire bowl in this furnace admits the heated air and the oxygen ignites and burns the carbon.

Write for catalogue giving full description of this and of the furnaces. Do this to-day.

Green Foundry & Furnace Works,

2d and Vine Streets, - - DES MOINES, IOWA.

Gilt Edge Furnace

Dealers have the co-operation of the makers and the satisfaction of thousands of satisfied users to back up their arguments in making sales. "Gilt Edge" insures the greatest economy, durability and power.

GILT EDGE

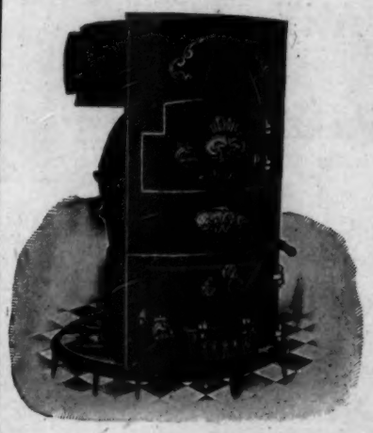
Our publicity department will co-operate with you. Write for selling methods and catalogs, etc., etc.

R. J. Schwab & Sons Co.

Manufacturers

287 Clinton Street, Milwaukee, Wis.

Our side wall registers take the lead among leaders. Our tin and galvanized iron pipe and fittings fit.



OUR NEW

DE HAVEN ALL CAST FURNACE

Strictly Modern and Up-to-Date in Every Respect

All the latest features in modern furnace construction are embodied in the make-up of this furnace. Features:

Extra Heavy; Gas Tight; Burns all grades of Hard Coal, Soft Coal and Wood; Simple and Economical to Operate; Top Return Flue Radiator; Large Radiating Surface; Roller Bar Grate.

Write to-day for Catalog and Prices.

YOUNGSTOWN FURNACE & SUPPLY COMPANY

Manufacturers of the Celebrated LION-APEX and BESSEMER Series of Furnaces.

NILES, OHIO

Chicago Branch
218 East Lake Street

ROOD & McINTYRE
Kansas City, Mo., Southwestern Distributers

OPEN HEARTH
ANNEALED STEEL FURNACE
—THE—

MONARCH X

Superior to any furnace of its kind on the market.

—FEATURES—

An extremely large radiating surface. **The radiator has revertible flues, the heat and smoke passing through two openings on each side and down to the base of the radiator and then back again to the top before entering the smoke flue.** Every particle of heat is utilized. Absolutely Gas-tight. Fitted with our patent revolving grate. Burns hard and soft coal, coke, wood and gas.

This furnace has a record of 25 years success behind it.

Write for Our Complete Catalog.

KRUSE & DEWENTER CO., Indianapolis, Ind.

THE NEW CELLULAR OVERDRAFT FIREPOT

?

HAVE YOUR FURNACES GOT IT

Better write us

The Bonnot Co.
CANTON, OHIO

For Perfect Heating

all that is Required is one of our

All Cast Iron Furnaces

They are Simple, Durable and Powerful. They are Great Heaters, absolutely Gas, Smoke and Dust Proof and invariably give satisfaction. Write for descriptive matter. We like to tell you about them.

Walter S. Rait & Co.
211-213 Lake Street
Chicago, Ill.

1,000 Years

ago leisure moments were passed in the company of "wise fools" and Merry-Andrews. Now people read. By some people, leisure moments are moments of amusement. Other people find recreation in a small amount of study. The latter are the kind that have two horses for a one-horse buggy.

100 Tinners' Patterns

will help to buy the extra horse. Sent postpaid on receipt of $1.00. Our descriptive circular tells why it's up to you.

DANIEL STERN
355 Dearborn Street
CHICAGO

A Good Furnace Business

can be built up in any community if the correct furnace is offered. One like the

MONCRIEF

TOP RETURN FLUE WARM AIR

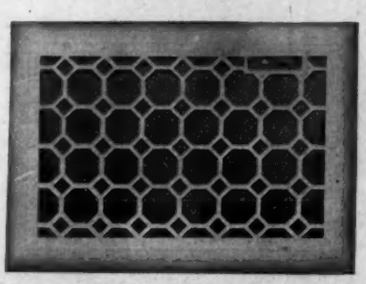
FURNACE

guarantees a dealer all of the most particular contracts in his neighborhood.

Its Simplicity, Durability and Economy together with serviceability are prominent and meritorious features. *Write for our Catalog.*

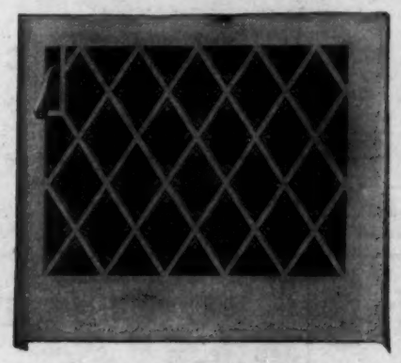
HENRY & SCHEIBLE COMPANY
625-29 Long Ave., N. W., CLEVELAND, OHIO
J. C. KIMMEL, 3314 East 15th St., Kansas City, Mo.
Western Sales Agent.

Baseboard and Sidewall Heating



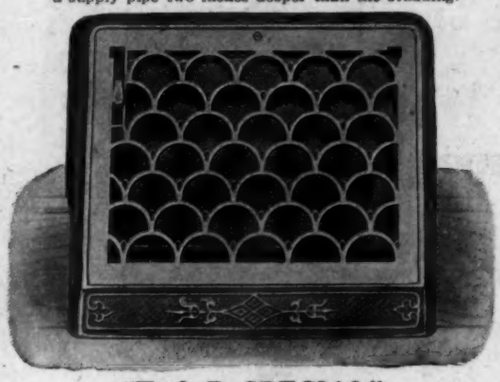
"T. & B. REVERSIBLE WAFER"

This register is one inch deep and is used in the sidewall of second story and above.



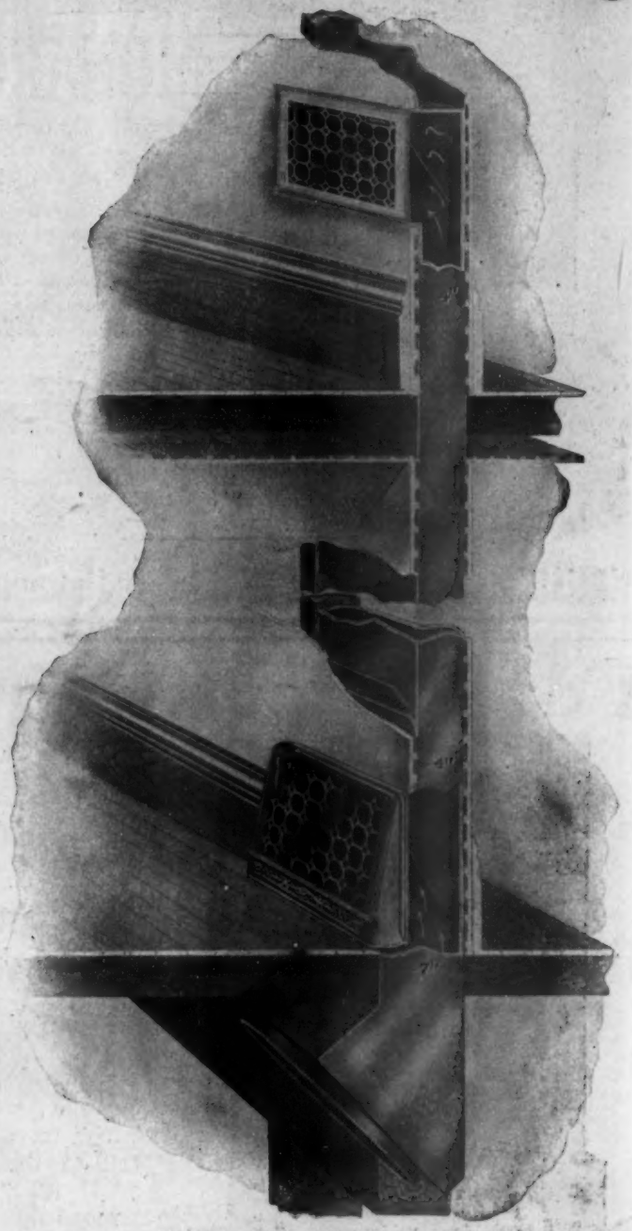
"T. & B. IMPERIAL"

This register sets in the baseboard in the first story and takes a supply pipe two inches deeper than the studding.



"T. & B. SPECIAL"

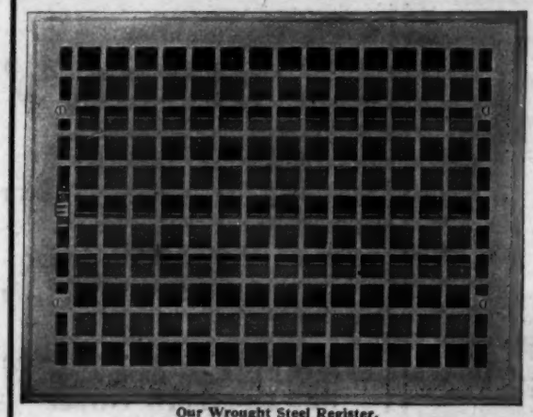
This register sets in the baseboard in the first story and takes a supply pipe three inches deeper than the studding.



SEND FOR NEW CATALOGUE

TUTTLE & BAILEY MANUFACTURING COMPANY

NEW YORK CHICAGO BOSTON



Our Wrought Steel Register.

SOME REGISTER MEN

Make

Cast Iron Registers

Others make

Semi Steel

Still others make

Wrought Steel

We make ALL THREE KINDS

Buy where you can get EVERYTHING

Ferrosteel Company, Cleveland, O.

PACKED IN KEGS WITH RED HEADS

To describe the manufacture of

JUNIATA HORSE SHOES

is to write the history of iron and steel making, thus showing the results of ages of experience as embodied in these good Shoes.

This experience is first brought to bear in digging the ore from the ground, and then follows through the furnaces, and the many operations of shaping, to the finished Shoe. Each process is under the keen eye and is guided by the hands of painstaking and highly-skilled men, whose lives have been spent each in his particular line of work.

The united result, up to the time we offer for sale the finished keg of shoes, is that of the highest and best that good workmen can produce.

Made of Steel or Iron, in Standard Sizes and Patterns, adapted to both city and country use.

What's the Matter With the Base Burner?

A Base Burner without air-leaks will never be made!

No matter how carefully constructed a Base Burner may be, air is bound to leak through the base doors, registers and poke-holes,—and around the mica doors.

It simply can't be helped. The Base Burner is a type of construction that's scientifically **wrong.**

Even an expert can't control it when wind and weather are wrong. And in the hands of the average housewife, it's a waster of fuel.

We'll grant Base Burners have always been considered economical. They are,—in comparison with direct-draft stoves. But they're anything but economical when compared with the

STERLING HEATER

MODEL "O"

The STERLING Heater has all the good features of the Base Burner,—and in addition, it's air-tight!

It's the only return-flue stove that is air tight.

A child can control the STERLING Heater,—can get much heat, or little heat, at will,—and with the smallest consumption of fuel of any heating stove ever made!

You've got to see the STERLING in operation, to realize how fundamentally different it is,—and how extravagant the best Base Burner is by comparison.

We **want** to show you. And we **will**, if you'll send us your name and address,

SILL STOVE WORKS,

534 Oak Street **Rochester, N. Y.**

See the Sterling FIRST

ESTABLISHED 1880.

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

TERMS OF SUBSCRIPTION IN THE UNITED STATES AND ITS POSSESSIONS.
(Invariably in advance): ONE YEAR, POSTAGE PAID, $2.00.
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DANIEL STERN, PUBLISHER AND PROPRIETOR,
355 DEARBORN STREET, CHICAGO, ILL.

Entered as Second-Class Matter June 25, 1885, at the Post Office at Chicago, Illinois, under Act of March 3rd, 1879.

CHICAGO, MAY 1, 1909.

THE QUARTERLY report of the United States Steel Corporation issued on April 27, showed total earnings for three months of $22,921,268, which compares with $26,225,485 for the last quarter of 1908. Net earnings were $19,185,069, which compares with $21,011,663 for the previous quarter. After payment of bond interest, etc., there was left a balance of $11,873,106, against $13,699,700 in the previous quarter. The surplus for the three months after the payment of common and preferred dividends was $3,026,674, against $5,142,451 in the last quarter of 1908. Despite the lower prices which prevailed in the last month of the quarter just ended and the consequent increase in orders, the unfilled tonnage on hand on March 31 is less than the unfilled tonnage on Dec. 31. The actual unfilled orders on March 31 totaled 3,532,595 tons, against 3,603,527 tons on Dec. 31. Net earnings of $22,921,268 compare with $18,229,005 for the corresponding quarter of 1908. The surplus of $3,026,674 compared with the same quarter's surplus a year ago of $7,865, an increase of $3,018,809. Unfilled orders at the end of the quarter were 222,748 tons less than the tonnage reported at the end of the first quarter in 1908. The usual dividends were declared.

CHICAGO mail-order houses are under fire in Germany on charges of unfair dealing. A violent attack on their business integrity has been published in a prominent German trade journal. The journal publishes a communication from a German-American contributor of New York named Sperber, which assails these Chicago establishments in the most vituperative language. The writer makes the sweeping assertion that 50 per cent of American mail-order houses, especially those seeking foreign business, "are swindlers of the worst kind" and warns the Kaiser's subjects against yielding to the temptations of their attractive catalogues. One concern of which Sperber claims to have knowledge does a big business in Germany, and he finds cause for its abuse in the fact that its operations are conducted with profit of 100 per cent. Capital invested in the mail order business in Chicago is said to amount to upwards of $100,000,000. A single firm, with a dividend paying capital stock of $40,000,000, and two others do business which covers almost the entire civilized world. The number of letters received in a single day by one of these firms often runs as high as 50,000, it is said. How many more thousands of letters will it receive when the Parcels Post goes into effect? Truly, the Parcels Post would be the finest thing ever to fatten the retail mail-order houses, and they know it, too.

Michigan Paint Dealers Up in Arms.

MICHIGAN members of the National Paint Dealers' Association are up in arms over two bills introduced into the Michigan Legislature which, if enacted, will require that all paint sold at retail shall bear labels on the cans showing the exact percentages of ingredients. Paint dealers and manufacturers complain that such legislation would be little short of confiscation of property, since it would compel them, in order to sell their product in Michigan, to make public valuable formulae for the making of paint that may have required years to perfect. They argue that it would drive individual manufacturers, whose chief assets are secret formulae for mixing paint, into the hands of the so-called "paint trust."

Further protest is based on the ground that the law could not touch mail-order houses, and it is the product that they put out that is said to be the chief cause of complaint among consumers. In fact, there is a clause in one of the bills which says that no provision of the act shall be construed to interfere with manufacturers selling directly to consumers without labeling their paint.

Paint men are disposed to welcome legislation that will prevent frauds in the sale of paint, but they naturally object to a law that would compel them to expose valuable formulæ.

Benefit Associations.

MANY business men are interested in the subject of benefit associations for employes. It is an idea that is in the air. But the literature about it is not extensive. There is enough about theory. It is a knowledge of the details of practical working that is wanted. For that reason there is much value in an article in the "Annals of the American Academy of Political and Social Science" for March. It is by C. W. Price, director of the McCormick Works Club in Chicago. Its title suggests the interesting content, "Employes' Benefit Association of the International Harvester Company." It is a detailed account of a plan which has been in operation among the workers of this company since September last. It answers a good many questions that naturally arise.

How is the association organized; how governed; what are the conditions of membership; what are the benefits to the employe; what relation does the "company" have to it; is membership voluntary or compulsory; what discrimination is made between old men and young; what about the women employes; where was the information secured on which the plan

was based; how does it affect the liability of the employer; how has it worked during the few months of existence? Those are some of the queries that find clear and explicit answer.

Mr. Price expresses his own conviction in the sentence: "I know of no way in which an employer, with the same expenditure of money, can so directly and effectually help his employes to help themselves as by organizing an employes' benefit association on a broad, generous basis." In the case cited the initiative was taken by the McCormicks.

Work For the Nervous.

THE popular doctrine for a long time has been that for nervous persons rest is a necessity. This doctrine has been embodied in the famous Weir Mitchell cure, says Rev. S. S. McComb, in *Harper's Bazar*. And, doubtless, for certain cases rest should be commended —as, for example, in certain acute exhaustive states of the nervous system, where there is a genuine or physical fatigue as distinguished from psychical fatigue. But modern students are more and more coming to realize that not absolute rest but modified rest—that is to say, rest and work combined—is the sovereign remedy for nervous disorders. The great majority of persons who suffer from neurasthenia complain of a sense of fatigue, and they naturally infer that what they need above all things is rest, or cessation from activity; but they forget that, in a vast majority of instances, the fatigue does not spring out of any real muscular weakness, but rather from physical or mental causes.

Work, again, is the enemy of insomnia. The sufferer from bad or broken sleep is liable to give up duties or to be slack in their performance, to abandon exercise and forget his usual hobbies, because of his anticipation of a night of distress. In the reality, he ought to prepare himself for sleep by congenial activity, in which his mind will be weaned away from the fear of not sleeping. Once more, work is an enemy to the fears and impulsions, to the strange sense of unreality and other morbid symptoms which accompany psychasthenia. Work restores to such a sufferer, "the function of the real." It is only through contact with reality that man, whether normal or abnormal, can find abiding satisfaction.

Disease and Death in Our Industries.

THE REPORT submitted to the Illinois Legislature by the State Commission investigating the subject of occupational diseases, discusses in detail the maladies found in certain industries.

It finds horseshoers and blacksmiths to be liable to hypertrophy of the muscles, inflammation of the eyelids, bronchitis, rheumatism, aneurism, and palsy.

Steel workers, being exposed to excessive heat, are liable to pneumonia, phthisis, and disturbances of circulation and digestion. Watch workers are exposed to lung trouble. Workers in the manufacture of wire and tacks and employes in railroad shops are liable to affections of the eyes and to nervous troubles.

"Painters, typesetters, and all others who handle lead," says the report, "are liable to be poisoned, and in Illinois many thousands of employes seem to be exposed more or less to these perils. There are apparently about 1,300 men who come in contact with zinc, which also acts as poison."

The committee finds 14,000 persons employed in the manufacture of brick and in marble and other stone works, in glass works and in other industries where workmen constantly are exposed to lung disease, lead poisoning, sudden changes from heat to cold, with ensuing rheumatism and nervous diseases.

"Turning to occupations in which workmen are exposed to the dangers of dust," the report continues, "to injuries of the lungs and general vitality, we know that the vast army of men and women risk their lives in occupations of this class. More than 65,000 men labor in mines, many hundreds in the manufacture of cotton and woolen goods, others in great numbers handle furs, hair, rags, and mattresses and inhale dust with its bacteria. In the preparation of food more than 40,000 persons daily are engaged in the most necessary social service with certain exposure to sickness. Thousands of men working in breweries and distilleries are exposed to conditions which make them bad insurance risks. The story of the clothing manufacturer recalls the pathetic "Song of the Shirt," by the sympathetic poet, Hood, and more than 63,000 men, women, and children in Illinois are engaged in this industry. "A study of these conditions and of measures for relief would require many months of expert investigation," says the report.

It is well known that much of the sickness and mortality now caused by various trades are not fated or necessary. Much of the evil can be prevented or mitigated by methods already known to science and embodied in the best regulations and laws. Some of the most intelligent manufacturers in this country have in one way or another discovered and applied some of these measures with evident advantage, and Illinois has reached a stage of development where conservation of its human power and skill has become an enormous financial factor.

Perils of fire, perils of water, and perils of all the other elements beset the workers in industrialism. Frederick L. Hoffman of the Bureau of Labor, Department of Commerce, finds that every year between 30,000 and 35,000 workmen lose their lives while engaged in the duties incident to their occupations. Census reports covering the years 1900 to 1906 show that out of all deaths of males more than 9 per cent were due to accident. The most exposed class of factory and workshop employes are the workers in steel and iron. Of 8,456 accidents during the years 1901 to 1905, 4.1 per cent of the accidents to men employed in rolling mills resulted fatally. Industrial insurance experience testifies that the fatal accident rate of electricians and of electric linemen is excessive. Of 645 deaths of electricians, 14.7 per cent, and 245 deaths of linemen, 46.7 per cent, were due to accidents. In the anthracite mines of Pennsylvania, state inspectors have found that during ten years there have averaged annually 3.18 fatal accidents for every 1,000 men employed, and the rate is even higher than this for certain specific occupations in the mines. The death rate from accident in the British coal mines is but 1.29 per

1,000. During ten years 16,363 railway trainmen lost their lives in accidents. This is equivalent to 7.46 deaths per 1,000 employes.

We cannot afford to enfeeble and destroy the human agencies of production.

RANDOM NOTES AND SKETCHES.

BY SIDNEY ARNOLD.

The tin roofing business in this country is assuming proportions that a decade or two ago were not even dreamed of. People used to think that scarcely anything could be found that would supplant felt and other coverings for roofs. But what a change since the introduction of tin and terne plate! Indeed, this is not surprising when you take into consideration the efficiency, lasting qualities and fire-resisting properties of tin plate for roofing purposes. Why, it is not an unusual thing to hear of a tin roof that has been in use for a generation or more giving as good service as the day when it was first put on! Can it then be wondered at that the tin roofing industry is making such rapid strides and that sheet metal workers are finding it to be the most remunerative branch of their business because of the demand for roofing of this kind. Imagine the part that it plays in the sheet metal business of this country! Here is the National Association of Master Sheet Metal Workers! It is composed of 59 local associations in all sections of the land, and new ones are entering the ranks right along. They all extol the merits of tin plate for roofing purposes, and the association has taken such an interest in it that one of its most important committees is the "Joint Committee on Tin Plate," composed of representatives of the National association and of the manufacturers. Through the efforts of this committee the standard of tin plate manufacture has been raised. Better plate is now being made than heretofore. Yes, very much better. In fact much of it is so good that it looks to me almost like a shame to put it on the outside of a building instead of on the inside exclusively. But "the best in the house" was none too good for that Joint Committee. They wanted it and now they have got it. What has been the result? Why the tin roofing business today is thriving like a green bay tree. Honestly, I have more than once entertained a serious thought of quitting this brain-worrying journalistic career and going into the tin roofing business myself.

* * *

But what do you know about this? In the April issue of *The Gimlet* on pages 143 and 184, tin and terne plate gets the greatest "roasting" that could possibly be administered to it. Why; when I saw it, I said to myself: "By the Great Hornspoon, that fellow certainly *has* gone crazy this time." This is what appears on page 143, in the form of an advertisement:

"We used to sell terne plates. But the business shrank and shrank. Tin roofs will rust—they are difficult to repair—they are expensive. We woke up and found a change was taking place in the roofing business."—MIKE.

And what have you got to say about this, on page 184?

"Rubber Roofing. This roofing is taking the place of terne plates. That is why the business on terne plates has gotten down almost to zero."

Gee Whiz! There must be an awful profit on rubber roofing, if Mikekinney is willing to pass up the trade of sheet metal workers' supplies for a few pounds of nails and a hammer or two. Surely he does not expect these people to fall all over themselves buying sheet metal goods from him after "knocking" their business in the way that he has! Could it be possible that he sent a "marked copy" of the April *Gimlet* to his sheet metal customers calling their attention to the "lemon" that he has handed them? Everybody knows that our St. Louis friend is smart. He admits it himself. I must confess that I have seen some good stuff in his organ at various times and it is a surprising thing to me that a man who credits himself with being a "wise guy" should allow himself to effervesce and "slop over" in this way every once in a while. He has repeatedly fallen down on the markets and has found it necessary to back water. Wonder if he will back water in this case, too! If he really does not want to sell tin and terne plate, galvanized iron and accessories, he has certainly gone the right way about it this time, for I cannot lead myself to believe that sheet metal workers will step over each other's feet in sending in orders to him for their supplies. I used to think that whenever Mikekinney's signature appeared under anything in the *Gimlet* that he was the author of it, but I scarcely know what to think about it now, and I am inclined to the belief that some of the effusions in his booklet purported to have been written by him are the ravings of somebody else. However, I'll leave that to members of the sheet metal trade to decide. I am satisfied to allow them to be the alienists in this case, and to take what steps they may deem necessary to set right the "knock" that Mikekinney has given their business.

* * *

You have doubtless heard of the story of the cat that came back. Here is one about a monkey-wrench that returned. It is vouched for by the superintendent of a lithographing concern in New York, so it must be true. A barrel of ink was received from an ink manufacturer. It was billed at 32 cents a pound. The barrel was opened, and its contents found unfit for the job for which it was intended, and was returned to the manufacturer. Before heading it up, one of the boys, in a spirit of mischief, stuck a broken monkey-wrench down into the ink, and left it there. The next day after the ink was returned to the maker a salesman came around and informed the superintendent that he had a lot of 40-cent ink that he thought was about what he wanted. It was much better than the 32-cent ink, but he would put it in at 32 cents a pound owing to the trouble experienced with the first lot. It would be ready for shipment the next day. The next day a barrel of ink was delivered and was soon opened ready for the job. With the first lot out of the barrel there came a hard substance. Investigation proved it to be the monkey-wrench.

News Siftings

The Mascot Stove Mfg. Co., of Dalton, Ga., has applied for a charter, the capital stock being $15,000. The organizers are D. C. Jones, P. B. Trammell and L. B. Greer.

Plans are nearing completion for the erection of new buildings for the Great Western Stove Co. at Leavenworth, Kan., to cost in the neighborhood of $50,000. The main building will be 200 x 48 feet, five stories high.

J. Aubrey Wright, S. M. Wolf, C. V. Cupp and C. R. Callaghan have purchased the entire holdings of J. J. McCarthy, A. J., G. L. and F. E. Ulrich in the Conway Steel Range Co. of Bellevue, Ohio. At a meeting of the directors of the company held a few days ago, J. J. McCarthy tendered his resignation as secretary-treasurer, C. V. Cupp having been elected to fill the position.

The Ideal Stove & Range Works of Belleville, Ill., is the name of a new concern which has recently been incorporated for $5,000 by president Henry Schweinfurth; vice-president and general manager, Adolph Noser, and secretary-treasurer, Joseph L. Herrmann. The company will operate a foundry in the plant formerly occupied by the Wilson Steel Range Co. It is proposed to manufacture about 20 different styles of stoves and ranges. The building which will be utilized measures 190 x 50 feet, and is surrounded by good shipping facilities.

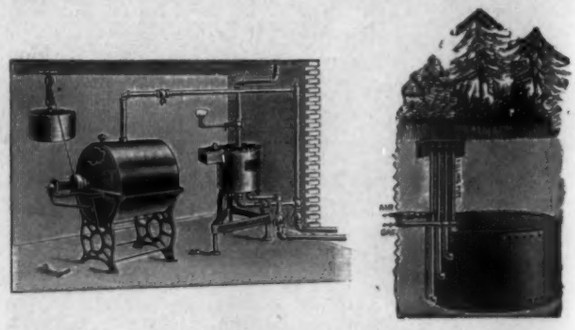
The Bergstrom Stove Company, Neenah, Wis., are distributing four attractively gotten up booklets illustrating and describing their "Royal West" steel range; "Royal Avenue" cast range; "Royal Cadet" steel range and their "Royal Elmhurst" base-burner. The "Royal West" is a new production and is described as a first-class steel range in every respect. The "Royal Avenue" cast range is a new six-hole product and is said to be strictly up-to-date. The "Royal Cadet" is described as the company's latest production in steel ranges, while the "Royal Elmhurst" is a new heating stove made in three sizes.

The Foundry & Manufacturers' Supply Association announce their fourth annual exhibit of foundry and shop equipment, to be held in conjunction with the annual meetings of the American Foundrymen's Association, the American Brass Founders' Association, and the Associated Foundry Foremen's Association, during "Founders' Week," May 17-21, at Music Hall, Cincinnati, Ohio. It is said that the exhibit this year will surpass all previous ones, and that the latest and best things in pattern shop, foundry and machine shop equipment will be displayed. Molding machines of every known type will be shown in actual operation, making molds from a few pounds up to 10,000 pounds in weight.

The recent issue of "Graphite," the monthly periodical of the Joseph Dixon Crucible Co., Jersey City, N. J., is devoted largely to the subject of lubrication and contains much of interest in this connection. "The Melting Point of Lubricating Compounds" is the subject of an article which deals with an important consideration in connection with greases, and gives the temperatures at which Dixon's Graphite Greases melt. W. H. Wakeman has the eleventh installment of his article entitled "Preventing Corrosion of Steam Machinery." "After the Winter's Lay Up" explains what care the owner or driver of an automobile should take before putting his machine in commission for the season. A view of the Joseph Dixon Crucible Co.'s branch at Washington, D. C., is shown in the publication.

COMBINATION GAS MACHINE OF THE DETROIT HEATING & LIGHTING CO.

Ten years ago it was customary for the man who was showing his country home to his friend from the city, to say apologetically, "Of course, we haven't the conveniences here that you have in the city, but then you can't expect to have everything you want when you live so far away from the city." Of late years, however, modern progress and invention has given more serious attention to the home in the small town and in the country, and there is also a growing disposition on the part of the man who dwells "far from the madding crowd" to insist on just as much comfort



Combination Gas Machine and Automatic Mixing Regulator.

as his city brother. It is now no uncommon occurrence to find a country home equipped with bathrooms, hot and cold running water, and lighting gas piped into every room in the house. In this latter particular, country homes have felt the greatest need. Sociability and comfort after nightfall calls for clear, brilliant light and plenty of it, and the idea that the country was a dull place originated probably by the sight of a family sitting around a dingy, smoky kerosene lamp, trying to peer through the gloom, and pass the evening reading or playing games by its imperfect light.

There are several forms of relief now offered the suburban or rural home, and among the best of these is the Combination Gas Machine, which gives the home what is actually a gas plant of its own, right on the premises. This ingenious invention can be set up in one corner of the basement or cellar and requires little or no attention at all. It supplies a gas that is perfect in the different rooms of the house, just like city coal gas, and like city gas, it can be used equally well for both heating and lighting. Ordinary burners, open or fitted with the usual gauze mantle, are used for lighting, and the light produced is clear, white and brilliant. The gas is ready to turn on and light at any time. No generation is required.

The illustration shows the Combination Gas Ma-

chine of the Detroit Heating and Lighting Co., 366 Wight street, Detroit, Mich. The fuel used is gasolene stored in a carburetor outside of the house, and buried in the ground. In most cases it need be filled with fuel once about every six months, and needs no other attention. The principal parts of the machine in the basement are a pump, which works with a weight and is wound up in a few minutes, every few days; and an automatic mixing regulator, which needs no attention whatever. This latter feature is found only in the most modern machines, and is deserving of special mention. Without it, lights from gasolene gas are liable to change and vary, depending on the age and quality of the fuel; but with this ingenious device the gasolene vapor is mixed and automatically held in correct proportion, which is 15 per cent gasolene vapor to 85 per cent air. The result is a clear, white light that does not smoke or fill up the room with noxious odors.

Experience has shown that gas can be produced by this method at a cost not to exceed one dollar per thousand feet, which will make the cost of light at an 80-candlepower burner figure about one-fourth of a cent per hour. This is very low, indeed, and few city dwellers can buy their light as cheap as this.

Combination Gas Machines are made in various sizes, and can be used to light a home, or to light entire villages and communities, on a co-operative basis. They are to be classed as among the most beneficial inventions produced to-day for the rural home. When writing the Detroit Heating & Lighting Co., 366 Wight street, Detroit, Mich., kindly mention THE AMERICAN ARTISAN.

THE "GRAND PEORIA LEXINGTON" CAST RANGE.

A reliable, high-grade cast range of Colonial design, known as the "Grand Peoria Lexington," has been put on the market by the Culter & Proctor Stove Co., Peoria, Ill. It is made in six styles and two sizes. The manufacturers state that the rich Colonial design of this range is sure to appeal to every housewife. The castings are perfectly plain and can be cleaned or polished in the shortest possible time. The nickel parts are loose, have no bolts, and on wash days or when cleaning the range, they can be lifted off and set aside. The drop oven door is evenly balanced, will remain open at any angle, and when dropped to a horizontal position, makes a large, strong, practical shelf. The company's original sliding damper is claimed to be the best and most perfectly operating damper made. The Duplex grate is easily removed and replaced without disturbing the fire-box linings or water front, and when reversed makes a wood grate. The hot blast fire-box insures economy of fuel in that it is said to consume all the gases generated. The "Grand Peoria Lexington" has a large, square, quick-baking oven, 14 inches high, with half round top. An accurate thermometer is placed in the oven door of the range. The oven rack is of steel and is guaranteed against breaking. The ash-pan is large and is bailed. The high steel closet with rolling front, or high steel shelf is made of polished steel, is attractive in appearance and is strong and durable. The Culter & Proctor Stove Co.'s combination check and pipe damper enables the operator to hold the heat in the range. Their extra large round bottom enameled reservoir tanks, are easy to clean. When writing the Culter & Proctor Stove Co., for further particulars regarding the "Grand Peoria Lexington" cast range, kindly mention THE AMERICAN ARTISAN.

"QUICK MEAL" EVAPORATING STOVES.

The Ringen Stove Co., St. Louis, Mo., division of the American Stove Co., state that their "Quick Meal" Evaporating Stoves are making a hit with all dealers selling evaporating gasolene stoves. The new "Quick Meal" Giant Burner is constructed on an entirely new principle, doing away with the drip-cup, thus preventing the generator head from clogging up with soot or other sediment. The Ringen Stove Co. state that "Quick Meal" steel ranges and "Quick Meal" gasolene stoves make a complete line for all seasons. Their 1909 catalogue may be had upon request. When writing for it, kindly mention THE AMERICAN ARTISAN.

THE "STERLING" HEATER.

The Sill Stove Works, 534 Oak street, Rochester, N. Y., are calling the attention of the trade to their "Sterling" Heater, which they state, has all the good characteristics of a base-burner and the air-tight feature also. They state that it is the only return-flue stove that is air-tight. They claim that a child can control the "Sterling" heater, can get much heat, or little heat, at will, and with the smallest consumption of fuel of any heating stove manufactured. The manufacturers say that in order to realize how highly efficient the "Sterling" heater is, it is only necessary to see it in operation. The Sill Stove Works will, upon request, be pleased to give full particulars concerning this stove. When writing, kindly mention THE AMERICAN ARTISAN.

AN APPRECIATION.

To THE AMERICAN ARTISAN:

We appreciate your paper and look forward to its coming with pleasure.

FOSTER & CO.

West Point, Miss., April 26, 1909.

Harry S. Cleveland, of Faribault, Minn., has been granted United States patents on two cooking stoves of his invention. The one is a cooking stove or range provided with a number of insulated warming closet spaces, tracks in the spaces, anti-friction devices mounted between the tracks, a warming closet in each of the spaces and supported upon the anti-friction devices, and guiding devices carried by the closets and slidably engaging the tracks. The other invention is a cooking stove provided with heat retaining closets, a utensil container rotatably mounted in the closets and insulated therefrom, means for partitioning the container to provide a number of independent chambers insulated from one another, and independent doors for each of the chambers. The inventor has assigned one-half of each patent to Chas. H. Rodenbach, of Cedar Falls, Iowa.

The Hardware Record.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly. You will find these on pages 38 to 43 inclusive.

The third annual convention of the Mississippi Retail Hardware Association, will be held at Jackson, Miss., on May 11 and 12.

W. H. Gardner, of the Bryan Hardware Co., Bryan, Ohio, has been appointed a member of the advisory board of the Ohio Hardware Association.

The Chicago Hardware Foundry Co., North Chicago, Ill., has sold the old washing machine factory building to the Great Lakes Mfg. Co., manufacturers of hardware.

H. G. Osborne advises that he has removed his office from 74 Cortland St., New York City, to 157 Chambers St., New York, where a full stock of Osborne Brick Drills will be carried.

The Eureka Staple Works of New York City has been incorporated with a capital stock of $2,000 to manufacture staples and fasteners, by Max, Helen, and Samuel Fischer, all of New York City.

The new building to be erected by the National Lock Co. of Rockford, Ill., will be four stories high, 200 x 64 feet. It will be of brick construction. When completed, the plant will be a modern one in every respect.

John J. Hurlock, a prominent hardware dealer of Snow Hill, Md., died on April 18 of heart failure. Mr. Hurlock moved to Snow Hill from Kentucky about 25 years ago. He is survived by a widow, two sons and one daughter.

The factory of the Grand Crossing Tack Co. at Grand Crossing, Ill., a suburb of Chicago, was badly damaged by a storm on April 29. The roof of the building was torn off by the wind, and with it went the north end wall.

Benjamin Engbritson, a hardware man of Minnesota Lake, Minn., and connected with the Peter Kremer Hardware Co. of that town, died recently in Minneapolis at the age of 40 years, where he had been attending to some business matters.

The Chalfant Mfg. Co. of Atglen, Pa., manufacturers of sad irons and hardware specialties, contemplates moving its plant from that town to Lebanon, Pa. The company also maintains a plant at Lancaster, Pa. Employment will be given to 75 men at the start.

The Hoopeston Horse Nail Co., Hoopeston, Ill., has rebuilt its plant which was badly damaged by fire last winter. The capacity of the plant has been doubled and the company is said to have enough orders on hand to keep it in full operation for several months to come.

Don. McMillan, manufacturers' agent, 40 Dearborn St., Chicago, is now located in Room 205 at the address mentioned, where he is occupying a well-fitted up suite of offices. Mr. McMillan, who represents some of the best known manufacturers of hardware specialties, recently decided to move his offices from one of the upper floors of the building at 40 Dearborn St. to the second floor.

E. E. Dekle, Valdosta, Ga., secretary of the Georgia Hardware Association, is distributing a handsomely engraved announcement of the fourth annual convention of the association, which will be held at Valdosta on May 18, 19 and 20. Headquarters will be at the Valdes Hotel.

Lewis T. Matlack, a member of the firm of E. C. Matlack, hardware dealers, Philadelphia, Pa., died on April 22 of pneumonia. Mr. Matlack was president of the Tioga Foundry Co. of Philadelphia, and was a veteran of the Civil War. He is survived by a widow and four children.

The hardware business which had been conducted by Herbert T. Clark at Willimantic, Conn., for several years, is now being conducted by the Clark-Hurley Co. The president of the company is James H. Hurley, formerly a member of the Jordan Hardware Co. Herbert T. Clark is secretary-treasurer of the new concern, which will conduct both a wholesale and retail hardware business. The company has started to do business with a capital stock of $12,000.

Francis Brucker, of Shelby, Ohio, has invented a spring hinge, on which he has been granted a United States patent, which has been assigned to The Standard Mfg. Co., Shelby, Ohio. The hinge comprises a frame for carrying the operating parts, an inclosing shell embracing the sides of the frame, an interlocking connection between the extremities of the sides and the frame for locking the sides to the frame, and a screw for securing the shell to the frame at the butt of the hinge.

M. M. Hamilton, a prominent hardware dealer of Brownstown, Ind., died recently at the age of 56 years, after an illness extending over a period of several months. He was born in Cincinnati. In 1876, he purchased the stove and tinware business then owned by John S. Kessler, selling out four years later. A few years ago he purchased the Keach hardware store of Brownstown and conducted it under his own name. The deceased is survived by a wife and several children. The business will be managed in future by Harry Hamilton.

At the recent annual meeting of the Umatilla County (Ore.) Hardware Men's Association, held at Pendleton, Ore., the wholesale dealers announced that the credit of the retailers would be cut down from six months to 60 days, the fact having been emphasized that the jobbers in allowing their customers six months' credit, were giving twice as much time as they (the jobbers) were getting. At the meeting, President G. A. Barrett was re-elected, W. E. Brock was elected vice-president, and John Nissen was elected secretary-treasurer.

A patent was on April 20 granted to William F. Young, of Detroit, Mich., on a brake for casters. It comprises a frame having two ears, one of which is provided with a ridge, a caster wheel being rotatably mounted between the ears. A brake is provided with a ridge normally registering with the first-mentioned ridge, the brake being adapted to bind the ears against the outer side faces of the wheel, when it is desired

to hold the wheel against rotation. The brake is provided with inwardly extending limiting lugs and outwardly projecting extensions.

Bullard & Gormley Co., hardware dealers, Chicago, moved this week into their new premises at 53-55 Lake street, 41-43 State street, and 54-56 Couch place. The Lake street section of the building, which contains five stories and basement, will be used for the company's wholesale business, while the State street section will be devoted to the retail. Bullard & Gormley Co. are now in a better position than ever to attend to the wants of their wholesale and retail customers. They had planned to move into their new premises by May 1, which they did, with several days to spare.

Butler Bros., Chicago and other cities, have decided to open a sample house at Kansas City, Mo., which will make the tenth branch house established by them. Contracts have already been let for the new building, which will be located in the heart of the city and which will be ready for occupancy by August 1 of this year. The building will be a four-story and basement structure and its entire space will be taken up with Butler Bros.' complete sample display. L. D. McCormick, formerly of the firm's St. Louis distributing house, will be in charge of the Kansas City sample house, the opening of which marks the onward move of the big wholesalers of general merchandise.

The fourteenth annual convention of The Texas Hardware Jobbers' Association was held at Houston, Tex., on April 19, 20, and 21. The attendance of members, manufacturers and their representatives was the best the association has had in a number of years. The meeting, from a business standpoint, was very interesting, and the reception and entertainment accorded by the manufacturers and Houston jobbers rendered the convention one of the most enjoyable ever held. Following are the officers elected for the ensuing year: President, E. A. Peden, Houston, Tex.; first vice-president, R. L. Penick, Stamford, Tex.; second vice-president, A. C. Gaeth, Austin, Tex.; secretary-treasurer, R. F. Bell, Ft. Worth, Tex.; executive committee, F. W. Heitmann, Houston, Tex., George Trumbull, Dallas, Tex., W. L. Sanford, Sherman, Tex., R. G. Wilder, Beaumont, Tex.

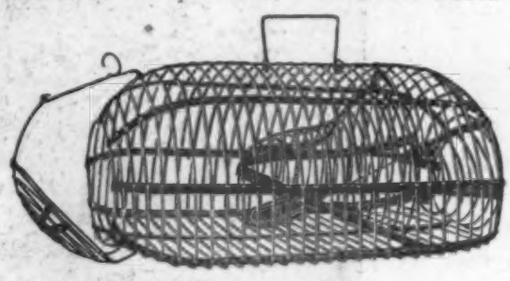
INTERESTING STATISTICS OF LIGHTNING FIRES.

The changed conditions which in the last few years have come to surround the lightning rod business are of special interest to the retail merchant. Formerly, these goods were sold exclusively by itinerant agents, and under this system many abuses crept in; now, however, by the combined efforts of the manufacturer and wholesaler this condition has been eradicated and the business put on a high plane. In consequence of this many retail merchants have taken up this special line and are doing very well with it in connection with their business.

E. A. Foy & Co. of Cincinnati, Ohio, who are among the largest manufacturers of this class of goods in the Middle West, have issued some very interesting statistics collected from Insurance Reports and the Bulletins issued from time to time by the Fire Marshals of the various states. W. S. Rogers, Ohio State Fire Marshal, investigated 500 lightning fires in 1908. Of these no building burned was equipped with a modern rod. The only rodded building struck had on it a conductor 30 years old and in bad condition. The loss on barn risks in Ohio from lightning has increased 100 per cent in five years. The number of barn fires from lightning amounts to 75 per cent of the total from all other causes combined. One hundred and ten Mutual Insurance Companies in Michigan report a lightning loss of $300,000 with no rodded buildings struck. Forty-seven Iowa Mutuals report loss on unprotected buildings of $50,000, and on protected risks, $15. The State Fire Marshal of Minnesota investigated 387 lightning fires. Not one building was rodded. The Farm Mutual Insurance Companies all over the country are increasing their rates on unprotected risks and this action is causing a rapid increase in the demand for the standard rods which have been approved by the State Association. The wide-awake dealer is getting the benefit of this demand.

AN ALL LOCKED RIBBED RAT TRAP.

The Bromwell Brush & Wire Goods Co., Cincinnati, Ohio, have put on the market an all locked ribbed rat trap, shown in the accompanying illustration. It is made in five sizes, of steel wire, with patent flange safety doors. All traps are lacquered and are guaranteed to be rust proof. The all locked ribbed trap



New Type of Rat Trap.

is always set and is constructed in such a manner that rats when once inside cannot escape. The Bromwell Brush & Wire Goods Co. state that their line of traps comprises the strongest, best made and most salable traps on the market. Their 1909 catalogue may be had for the asking. When writing, kindly mention THE AMERICAN ARTISAN.

W. B. HELLER & CO. ESTABLISH KANSAS CITY BRANCH.

W. B. Heller & Co., Montpelier, Ohio, manufacturers of steel shelf boxes for hardware and other stores, have opened up a branch office at 220-226 Wyandotte St., Kansas City, Mo., where they will carry a full and complete line of their goods, so that they will be able to make immediate shipments. All goods for the southwest territory will be sold f. o. b. Kansas City. The company's products include steel hardware shelf boxes, mice-proof seed cases, and screw and bolt cases. They make special cases to order for any use, and carry in stock standard hardware shelving. The last mentioned, the company states, is being used by hardware dealers in all sections of the

country with very profitable results, as it is modern, practical and labor saving. Upon receipt of floor plan, W. B. Heller & Co. will be pleased to forward drawings and prices. When writing, kindly mention THE AMERICAN ARTISAN.

THE SECOND PRIZE WINDOW.

The photograph of the exhibit that took second prize in THE AMERICAN ARTISAN'S 1909 Hardware Window Display Competition, is reproduced herewith. It was one of a number submitted by Max J. Elliott, with the Gray & Dudley Hardware Co., Nashville, Tenn., under the *nom de plume,* "Gogitem." Mr. Elliott's description of the window, which was a Washington's Birthday Display, follows:

"This special design, in honor of George Washington, proved unusually attractive and quite beautiful.

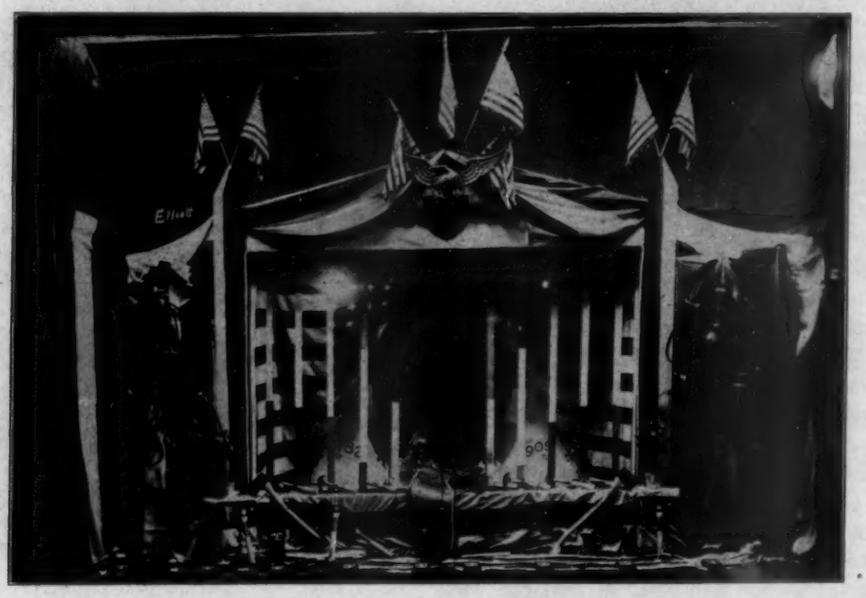
"In order to describe it fully, it is necessary to state that the window was 12 feet in length by 6½ feet deep. From the point of the highest flag shown, to the floor, was 11 feet.

"The picture of Washington was a hand painting in oil, and it measured four feet high by four feet wide. It was oval shaped, with a sectional border of red, white and blue, and it formed the background of the cabinet. The entire back was canvas, on which the picture was painted. This was not, however, the back wall of the window, for there was a space of 12 inches clearance between this cabinet back and the wall of the window. The entire length of the cabinet was 9½ feet. The back wall, which was in a recess, measured eight feet and was 16 feet deep from the perpendicular ribbons in front. There was also a 10-inch ledge in front of the ribbons. This ledge was 10 inches from the floor with 10-inch projecting corners at each end. On each corner was shown a small cherry bush. Also, in the floor of the cabinet, back of the ribbons, were six cherry bushes.

"In the cabinet top, behind the ribbons, were three electric bulbs, which do not show in the photo (red, white and blue). The white light came directly over Washington's picture, and it was necessary to have this out in order to get a photo. The perpendicular ribbons, shown prominently in the foreground, were constantly in motion, changing red, white and blue. The ribbon was 15 feet in length, each strip of color being 30 inches. There were 10 ribbons in all, giving 20 changes of color every minute. These ribbons were kept in motion by a set of rollers on top of the cabinet, just back of the gable. There was also a set on the bottom. The rollers were grooved, and held the ribbons in place while running. There were six rollers in all—three top, and three bottom, with one on top attached by a belt to an electric motor in the cellar, from which the power was obtained. The ribbons after passing down in front passed over the rollers underneath, then up behind the back of the cabinet. The moving ribbon, changing colors, kept a crowd constantly before the window.

"All goods shown in the window were of the Washington brand. There were two sets of harness on each end, shown on boards, draped in red, white and blue, with a saddle in the center. Hatchets, axes, hammers and other tools were shown.

"This unusually attractive window was gotten up in 24 hours, including setting up of all mechanical parts, etc. The total expense was $20.00."



Winner of Second Prize of $25.00 in THE AMERICAN ARTISAN'S 1909 Hardware Window Display Competition—Submitted By Max J. Elliott, with The Gray & Dudley Hardware Co., Nashville, Tenn.

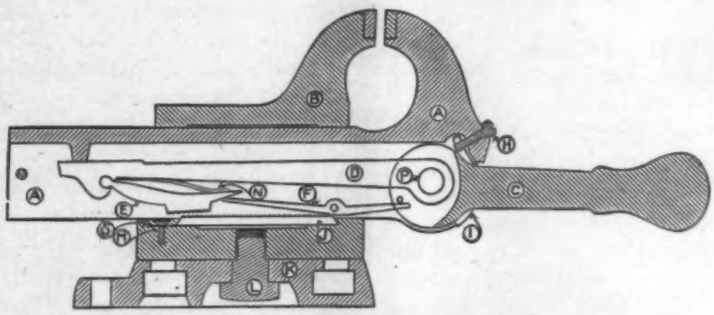
BUTLER BROS.' MID-SPRING CATALOGUE.

Butler Bros., Chicago, are now distributing their Mid-Spring Catalogue, N718, one of the features of which is their 80-cent-per-dozen-sale. Butler Bros. state that this sale offers a splendid opportunity for the dealer to make money and equally as good an opportunity to give his customers the value that they are in quest of. This sale is for the month of May only, and among the items listed therein may be mentioned the following: Full size flour sifter; 18-inch solid steel retinned kitchen spoon; automatic spring ice pick; 12-quart dairy pan; 5-quart lipped preserve kettle; 2-quart gray enameled saucepan; 5-quart lipped saucepan; "Titan" gray enameled wash basin; a special as-

sortment of knives and forks; 5-quart retinned pudding pan; large soup strainer; can opener for round and square cans; auger brace; assorted auger bits; lemon squeezer; an assortment of nut and bolt shears, etc. Considerable space is devoted in Catalogue N718 to fire-works and other Fourth-of-July goods, offered at attractive figures. The hardware department of the big catalogue is very complete. Butler Bros. state that the volume of their hardware business is almost without an equal in the world. Some attractive bargains are shown in wire goods specialties. Attractive values are offered in seasonable hardware—goods which, they state, cannot fail to make a busy May if used rightly. When writing Butler Bros. for catalogue N718, kindly mention THE AMERICAN ARTISAN.

PARKER'S IMPROVED QUICK ACTION SWIVEL VISES.

The Charles Parker Co., Meriden, Conn., and 32 Warren street, New York, have put on the market a line of Improved Quick Action Swivel Vises, a sectional view of one of which, with its working parts, is shown herewith. In the cut, *A* represents the slide; *B*, back jaw; *C*, handle; *D*, lever; *E*, rack; *F*, lifter; *H*, saddle screw; *I*, saddle; *J*, bottom rack; *K*, swivel base; *L*, center bolt; *M*, wedge screw; *N*, top rack spring; *P*, connecting pin for lever and handle; *S*, rack wedge. If the handle should not go low enough for convenience, it can be made to go lower by depressing it just before it touches the work to be held. If the handle fails to remain in a horizontal position, the screw *H*, in the cut, can be tightened to hold it. The Charles Parker Co. advise that care should be taken that the screw *M* is down, so as to keep the rack *J* from lifting with the clutch *E*. The sliding jaw *A* can be removed by taking out the pin at the end of the slide, keeping the handle horizontal. If grease or dirt should get on the rack *J*, the slide should be withdrawn and the rack and clutch thoroughly cleaned. The manufacturers state that particular attention has been paid to the proper proportion of the parts of Parker vises, and the great strength of these vises will always be found where the strain is most severe. When writing for catalogue, kindly mention THE AMERICAN ARTISAN.



Sectional View of Parker Vise, Showing Working Parts.

SYRACUSE STEEL SINK BRACKETS.

The H. E. Hessler Co., 502 N. Salina street, Syracuse, N. Y., have put on the market the Syracuse Steel Sink Brackets, which are declared to be cheaper, neater and stronger than cast iron. They are made in two sizes. No. 1 measures 10½ x 14 inches, and takes a sink 14 to 18 inches, while No. 2 is 12 x 16 inches, and takes a sink 18 to 20 inches. The company is distributing a circular in which illustrations of these brackets are shown. When writing the H. E. Hessler Co., kindly mention THE AMERICAN ARTISAN.

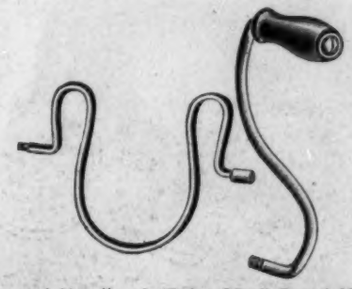
WYNN'S PATENT ROLLER CABINET.

The Roller Cabinet Works, Sterling, Ill., have brought out Wynn's Patent Roller Cabinet, which is here illustrated. The cabinet is designed for storing and measuring wire cloth, the top being specially ruled for cutting glass. Two revolving rollers hold the roll of wire cloth and keep it from loosening while being measured. The cabinet displays 18 rolls from the sides, there being four end pockets 60 inches deep for long rolls, provided with card frames, showing the size of the wire cloth each pocket contains. All pockets are seven inches square. A drawer under the rolls for tacks and shears pulls out from either side, and the cabinet can be used from either side. Wynn's Patent Roller Cabinet is 32 inches high, 70 inches long and 32 inches wide. It is made of solid red oak, with paneled ends, finished in golden oak. It weighs 200 pounds, and is shipped as a display counter. The Roller Cabinet Works state that it is a durable fixture, always ready for use, that it cannot get out of order and is an ornament to any store.

Wynn's Patent Roller Cabinet.

THE "POLAR STAR" BREAD, CAKE AND BISCUIT MIXER.

Smith & Hemenway Co., 108-110 Duane St., New York, report a steadily increasing demand for their "Polar Star" Bread, Cake and Biscuit Mixer, the flexor and handle of which are shown in the illustration herewith. The company states that it is the most inexpensive good bread mixer on the market and that it saves its own money value in time, energy and flour. It not only mixes the ingredients but kneads the dough as well. It is easy of operation and simple in construction. The mixer is made of heavy AAAA tin. The steel parts—kneader, crank and clamp, are made of spring steel, having three heavy coats of pure tin. The mixer is so constructed, having oval bottom, that every particle of flour is taken up in the kneading. The cover is oval shaped, giving considerable space above the top of the mixer, and grooved on the edge to fit tightly to the mixer and perforated



Flexor and Handle of "Polar Star" Bread Mixer.

for sifting flour and to give air in raising. The triple kneader is made to clear every part where dough might adhere, with one large flexor in the center which does the kneading and two minor flexors which carry the dough forward to the center. When writing Smith & Hemenway Co., for further particulars and prices, kindly mention THE AMERICAN ARTISAN.

RETAIL HARDWARE DOINGS.

NEW FIRMS AND CORPORATIONS.

Henderson, Ky.—Wm. Linville and Jack Stanley have formed a partnership and will engage in the hardware business.

Hibbing, Minn.—The Hibbing Hardware Co. has been organized by Geo. Snyder, Geo. Ferguson, C. E. Tvedt and others.

Lebanon, Va.—The Russell Hardware Co. has opened a hardware store.

Pulaski, Va.—The Price Hardware Co. has been incorporated with a capital stock of $50,000, by W. H. Trelinger, A. V. Hancock and W. C. Price.

Keyeser, Wis.—Boehm Bros. will open a new hardware store here.

Ft. Smith, Ark.—The Stanton-Lindburg Hardware Co. will open for business here. They will carry a line of hardware, stoves, tinware, etc.

Palmer, Ia.—E. W. Clark has engaged in the hardware business.

Mangum, Okla.—J. D. Sentell is opening a new hardware business in this city.

Churubusco, Ind.—The Churubusco Hardware Co. has been incorporated with a capital stock of $25,000.

BUSINESS CHANGES.

Springfield, Ill.—E. D. & W. G. Cressy, formerly with J. L. Hudson & Co., have purchased the hardware store of Flesch Bros., located at 513-515 East Monroe street.

Cedar Falls, Ia.—Knipe & Umbaugh, hardware dealers, have disposed of their stock to Louis Knipe and John Frederickson.

Cambridge, Ill.—H. Weirrich has purchased the hardware store of M. J. Peterson.

Palmyra, Pa.—Geo. Greiner has disposed of his hardware establishment to A. C. Ober.

Forrest, Ill.—Marion Kiser of Ohio has taken over the hardware stock of R. C. Skinner of this city.

Cambridge, Ill.—M. J. Peterson has severed his connection with the hardware firm of H. & W. Weinrich.

Akin, N. Y.—John H. and Frank Marshall have taken an interest in the hardware store of their brother, Jas. E. Marshall.

Melvin, Ia.—F. J. Drilling has purchased the hardware business of C. E. St. John & Co.

Newark, N. J.—The David D. Slaight Hardware Co. has removed to premises on 221 Washington street and 70-78 Bank street.

Oskaloosa, Ia.—L. M. Stalker has purchased the hardware business of J. W. Robinson of Algona.

MISCELLANEOUS.

Portsmouth, Ohio.—The Hibbs Hardware Co. contemplate making improvements in their store.

Waterloo, Ind.—W. S. Getts has opened a tinshop here.

Guthrie, Okla.—The Webber-Ayres Hardware Co. has been granted a charter to do business in Oklahoma.

Baltic, S. Dak.—Mrs. J. K. Quesdadt's hardware store suffered a loss by fire.

Ilion, N. Y.—The Ilion Hardware Co. have secured A. G. Fish to take charge of their plumbing and tinning departments.

Traer, Ia.—Arthur Thomas of the firm of Thomas & Sons, hardware dealers, has withdrawn from the same.

Cordell, Okla.—The Aache Hardware Co.'s store suffered a loss by fire.

Pellston, Mich.—The hardware store of Meyer & Co. was damaged by fire to the extent of $4,000.

Now is the time to clean up all the early spring odds and ends, broken sizes and slow-moving goods, so that the end of the month will find the store fully prepared for summer needs.

OBITUARY.

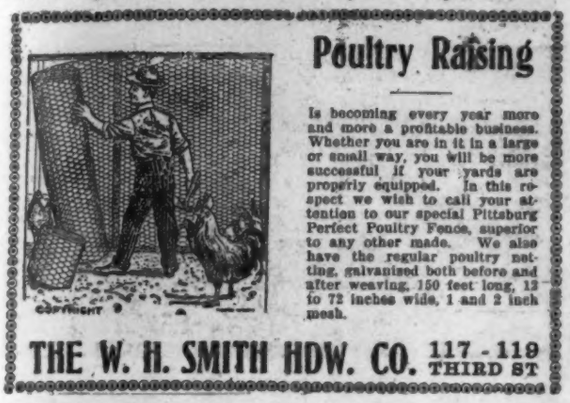
Charles E. Brackett.

It is with deep regret that we are called upon to chronicle the death of Charles E. Brackett, who, during the past twenty years, had been connected with THE AMERICAN ARTISAN. The sad event took place at the Chicago Union Hospital on April 22, where the deceased had spent twelve days receiving treatment for a malady of long standing. Mr. Brackett was born at La Fayette, Ind., on February 6, 1847, being thus 62 years of age. In 1861, when 14 years of age, he enlisted as a drummer-boy and went through the Civil War. Later in life he, with others, established a trade paper known as *The Ironmonger*; afterwards severing his connection with that journal and associating himself with THE AMERICAN ARTISAN. Mr. Brackett was a man of untiring energy. His unswerving devotion to his daily duties was unusual, if not remarkable, and his reputation as a faithful worker was established years ago and maintained throughout his connection with this paper. A wife and one son, Jack, survive him, the latter a civil engineer at Copperhill, Tenn., with a promising future before him. Interment took place on April 24.

Advertising Department

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

"Poultry Raising" would have been an appropriate display head for the advertisement of The W. H. Smith Hardware Co. of Parkersburg, W. Va., if the advertisers were in the poultry business and were advertising it, but as it is to "Pittsburg Perfect" Poultry Fence that they wish attention drawn, the latter, or something similar to it, should preferably have been



used. In other respects the ad does not merit criticism of an adverse character. The text has been well written, and in general the advertisement shows up well. It appeared in the *Parkersburg* (W. Va.) *Sentinel* of recent date, and occupied three inches of space, two columns wide.

* * *

The advertisement of Rector Bros. Rardin & Co. of Parkersburg, W. Va., shown herewith in reduced form, is a very good example of a Christmas ad. The matter has been laid out to good advantage, though it is rather too condensed at the sides. The type selections are entirely satisfactory and the display feature is a strong one. On the whole, the ad is one which might well be studied by many advertisers. It appeared in a Parkersburg (W. Va.) paper of a recent date and took up ten inches of space, seven columns wide.

* * *

The Superior Hardware Co. of Superior, Wis., are to be congratulated upon the advertisement of theirs

here reproduced. It is bright and clean and does not present any features which call for adverse criticism. There is plenty of white space throughout it, rendering it attractive and easy to read. The advertisement is one which some dealers might do well to study. It appeared in the *Superior* (Wis.) *Telegram* and took up five inches of space, two-column width.

Heating and Ventilating

HOW THE HIGH SCHOOL AT MANCHESTER, N. Y., IS HEATED.

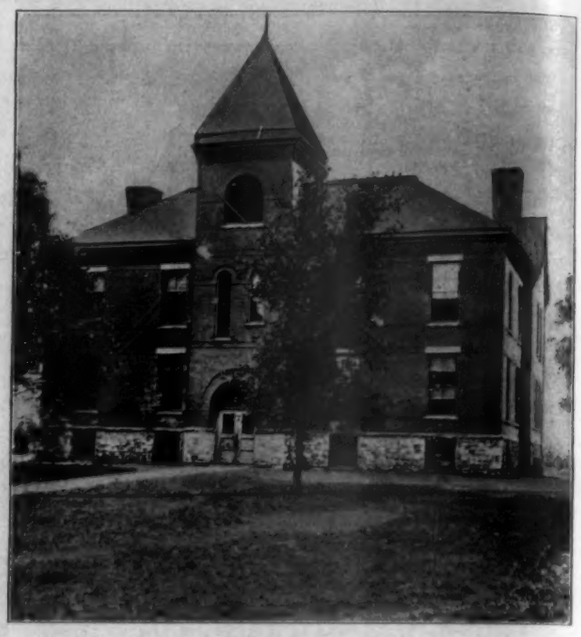
BY R. H. BRADLEY.

The satisfactory heating and positive ventilation of school buildings in many of the States having proper laws and a thorough system of inspection, has necessitated the placing of modern systems of this kind. The laws in certain states governing the heating and ventilation of school and other buildings are very stringent, and the inspection which such buildings undergo is in many instances of the most rigid kind. The result of such legislation has been the establishment in school buildings, in various sections of the country, of heating and ventilating systems which represent the most improved and most satisfactory types known to modern science.

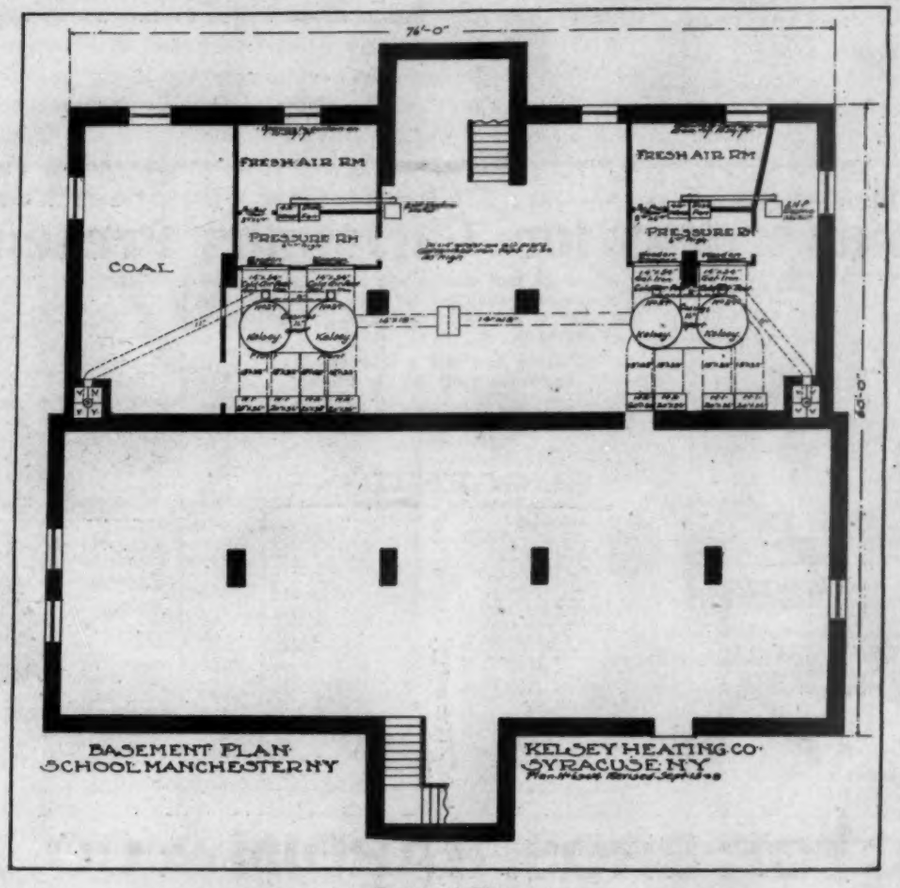
By referring to the accompanying illustrations, it will be noticed that such an arrangement has been provided in the High School Building at Manchester, N. Y., by the Engineering Department of the Kelsey Heating Co., Syracuse, N. Y.

This building is in a very exposed location, but with four (4) No. 27 Kelsey Warm Air Generators placed in two batteries it has been possible to warm the rooms to 70 degrees in the coldest weather, and at the same time supply the New York state requirement (30 cubic feet of air per minute per pupil) of fresh air for ventilation, with a very reasonable consumption of fuel.

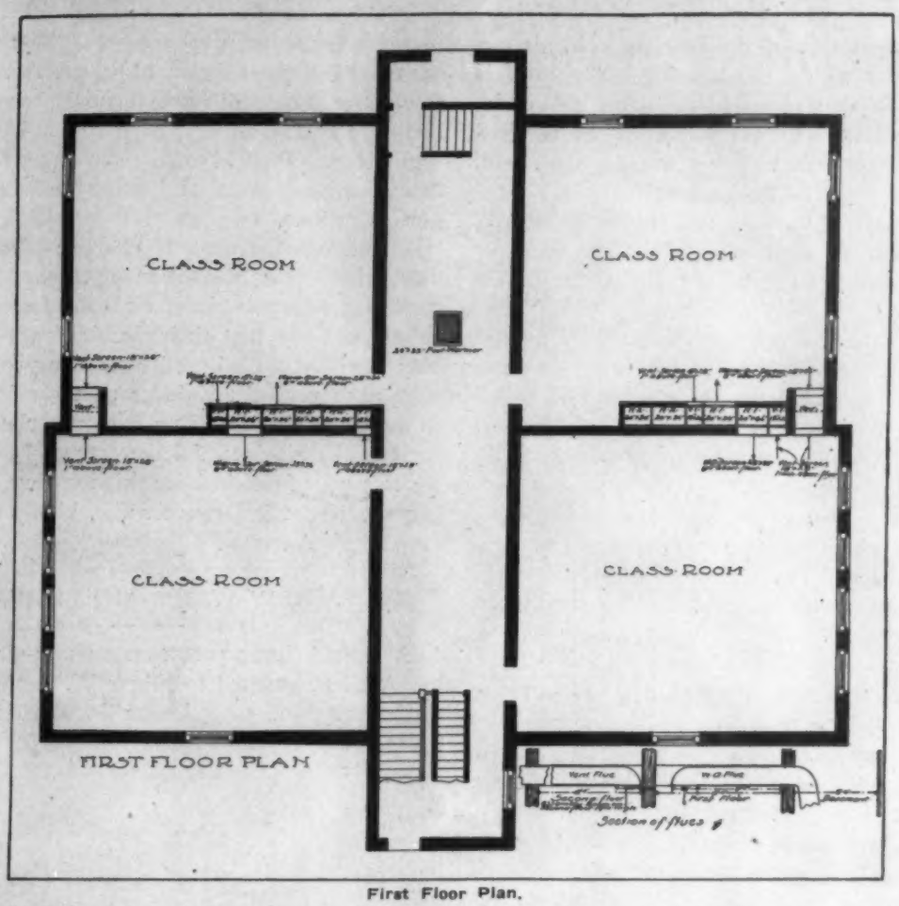
The warm air ducts are all rectangular in cross-section, and are made of heavy galvanized sheet metal with curved back at outlet to reduce the friction to the minimum. Flanged joints are used throughout so that the inside surfaces are smooth and the ducts are held firmly in position. Quadrant dampers are provided near heaters in all pipes, thus allowing for adjustment when necessary. The vent ducts are also of galvanized metal except the old brick flues which



Manchester High School.



Basement Plan.

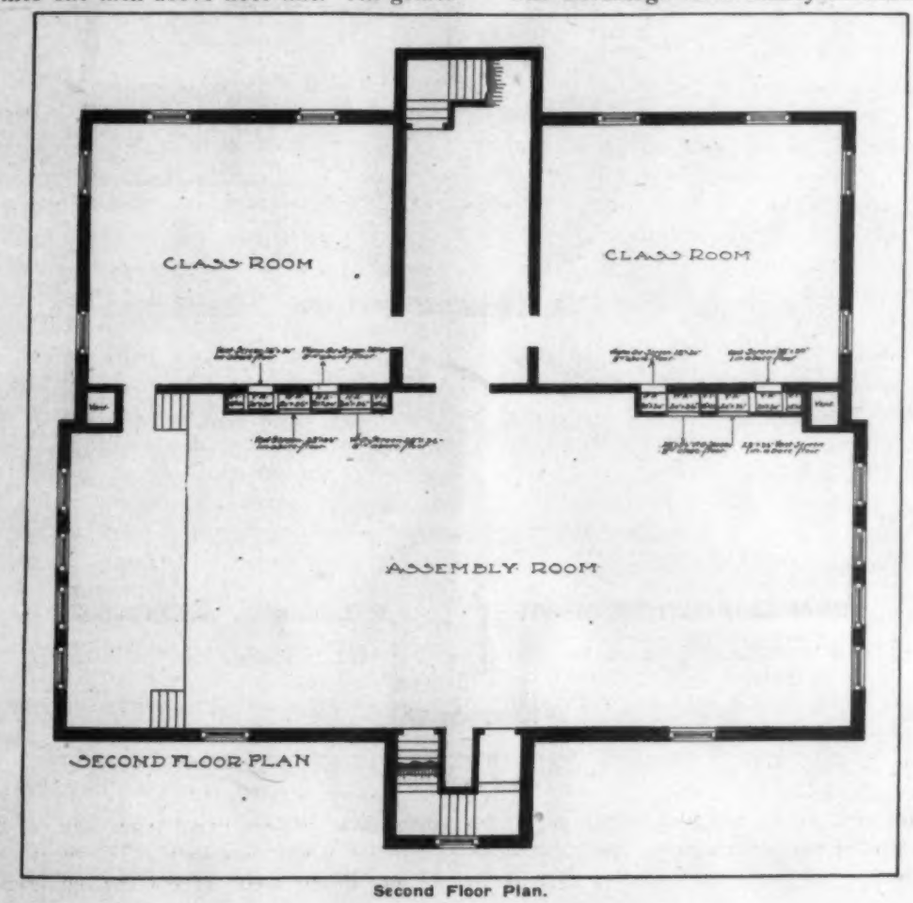


First Floor Plan.

were used. Dampers for closing the vents are provided.

The warm air grilles are placed 7½ feet from floor and vent grilles one inch above floor line. All grilles and ducts are of the proper size and location to secure a uniform temperature and the movement of the air causes no unpleasant drafts.

The advantage of a Kelsey mechanical system is,



Second Floor Plan.

that with the operation of the fans the cold air can be supplied from within the building when same is unoccupied, making it possible to warm the entire building in one-third the time that would be required with even a direct steam or hot water system with a proportionate reduction in the cost for fuel.

The velocity of air through the heaters is 850 feet per minute, and through the grilles 350 feet per minute. The temperature of the air at the outlets is 110 degrees F.

The speed of the fans is 275 revolutions per minute. The fans are of the Disc Wheel type, as the frictional resistance on this installation is very limited. Two alternating current motors, belted to the fans, are used and same are not expensive to operate when the saving in fuel is considered.

This system is said to be especially desirable for buildings of this kind, as it provides an apparatus that is very durable, and the cost for fuel is the lowest possible for the results obtained, and constant attention is not required.

THAT QUESTION IN WARM-AIR HEATING.

In THE AMERICAN ARTISAN of April 17, appeared the following question on warm-air heating from a correspondent in New Orleans, La.:

"Which of two kinds of pipe is preferable to be used on warm-air furnaces for heater ducts—is it the galvanized iron or the tin pipe? Which of the two would last longer, and which would deflect heat better? What difference would there be in the amount of heat delivered to the two pipes?"

We take pleasure in publishing the following letter on the subject from a San Francisco correspondent:

To THE AMERICAN ARTISAN:

In regard to the question recently asked in your paper as to which of two kinds of pipe is preferable for hot-air ducts, tin or galvanized iron, will state that so far as the merits of the two ducts for hot air are concerned, in our long practice, with the use of both, we have discovered no difference.

The galvanized duct will, however, wear much longer than tin. Either should be covered with a good quality of asbestos paper, at least 12 pounds weight, or air cell paper, which is very much preferable to plain paper pasted on.

We have never found any difference between the two in the amount of air delivered.

ROYAL HEATING CO.,
J. G. SORGEN, President.

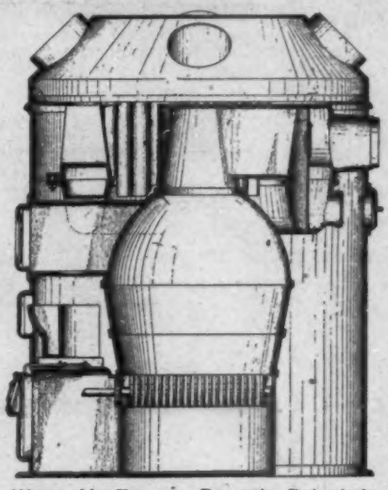
San Francisco, Cal., April 22, 1909.

PIONEERS IN THE MANUFACTURE OF STEEL FURNACES.

The Kruse & Dewenter Co., 427-429 E. Washington St., Indianapolis, Ind., are sending out their Trade Price-List No. 20 of their celebrated "Monarch" furnaces. The company are pioneers in the manufacture of furnaces. They were established in 1866, and they claim to be the first makers of steel furnaces in the west. The company advise that they have spared no expense in bringing their heating apparatus up to the highest standard of perfection, availing themselves of every valuable improvement, so as to furnish only the most modern system of heating and ventilating. They have in their employ experienced draftsmen and practical heating and ventilating engineers, whom, they state, they will be pleased to send out, upon request, to examine plans and buildings prior to the installation of the heating and ventilating apparatus. In their manufacturing department, they say that their facilities are unsurpassed, only the most skilled mechanics being employed. The company's price-list includes portable furnaces cased in the best galvanized iron with cast plate at the base to start the air-duct. All the company's portable furnaces can be furnished for brick setting. When writing the Kruse & Dewenter Co., kindly mention THE AMERICAN ARTISAN.

A NEW WARM-AIR FURNACE.

A United States patent on a warm-air furnace was on April 20 granted to Edgar W. Anthony of Smith & Anthony Co., 52-54 Union St., Boston. The application for the patent was filed on October 22, 1906. The radiator of this furnace surmounting the fire-pot, is so located relatively to the fire-pot and outer casing that air may course upwardly over the radiator on both the inner and outer sides thereof, the radiator having also transverse recesses or openings therein. There is a connection between the radiator and the fire-pot for directing the products of combustion to pass from the fire-pot into and through the radiator. A series of plates radially interposed between the radiator and an extension from the fire-pot provides auxiliary heat-radiating surfaces. Means are provided for baffling the air passing upwardly over the outer side of the radiator and directing it to pass through the transverse cuts or openings therein, whereby it may be heated by the auxiliary heat-radiating surfaces afforded by the transverse cuts or recesses and the interposed plates.



Warm-Air Furnace Recently Patented.

The B. H. Quick Wholesale Furnace Supply House will move from Moline, Ill., to Des Moines, Iowa. The concern has at present three men on the road, covering Iowa, Missouri, Nebraska and South Dakota.

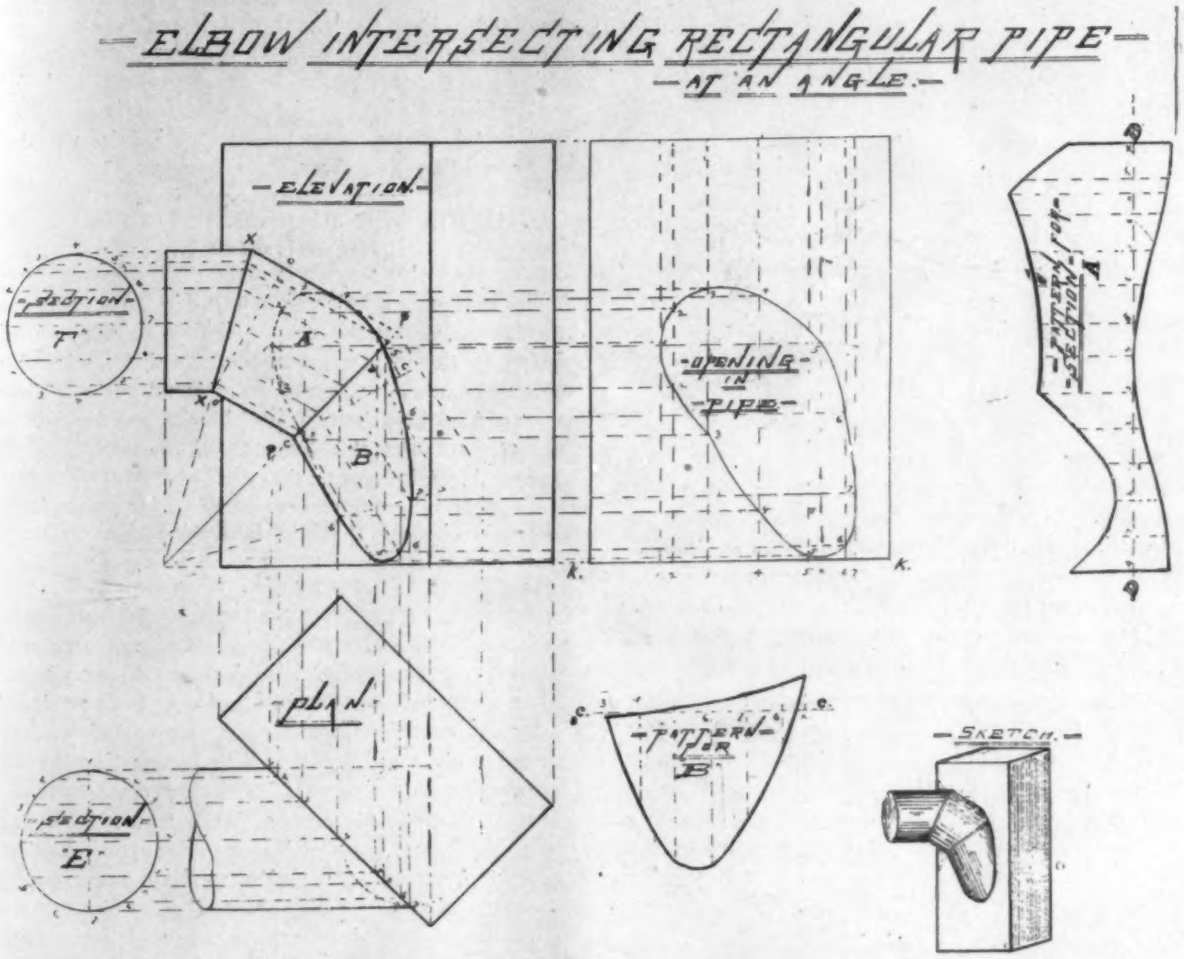
Tinshop

ELBOW INTERSECTING RECTANGULAR PIPE AT AN ANGLE.

BY G. L. GRAY.

First draw plan of square pipe, with round pipe intersecting at the required angle, also section *E*, and space into a convenient number of equal parts as shown by *1, 7, 1*. From these points draw dotted lines intersecting square pipe. Next draw elevation of pipe with elbow intersecting as required; also draw section *F* and space as shown and draw dotted lines from points *4, 7, 4* to miter line *X X*, also to miter line *P P*, and through section *B* indefinitely. Place T-square parallel with elevation. Draw dotted lines from all points *1* to *7* of plan to lines of corresponding numbers in elevation, and tracing line through the intersecting points will give the true miter line for pattern. For pattern of section *A* take spaces from section *F* and place on stretchout line *D D*, and draw indefinite stretchout lines, using line *o o* as base line. Take the length of lines *4, 7, 4*, placing them on stretchout line *D D* as shown, taking line *C C* as base line for pattern.

For opening in square pipe take spaces *1* to *7* in plan and place them on line *K K* and erect indefinite lines. Place T-square parallel with line *K K* and draw dotted lines from all points in miter line of elevation, intersecting lines of corresponding numbers in stretchout. Tracing line through the intersecting points gives pattern of opening in pipe.



BUSINESS OPPORTUNITIES IN MONTANA.

L. W. Curtis, a tinsmith, plumber and steamfitter of Harlowton, Montana, writing to THE AMERICAN ARTISAN under date of April 20, advises that there are numbers of good business openings along the new extension of the Chicago, Milwaukee & St. Paul Railway. A small shop, he says, with good business management, can grow rapidly in Montana, especially in the western part of the state, as the section in which he is located is said to be pretty well taken up. Concluding his letter Mr. Curtis says: "We have new settlers out here every day, taking up claims or buying them for farming purposes. I have been located in this town for six months, having come here from the Coast, and have not missed a single week's work during that time. All lines of business are flourishing in the state and we look for a very prosperous year for Montana."

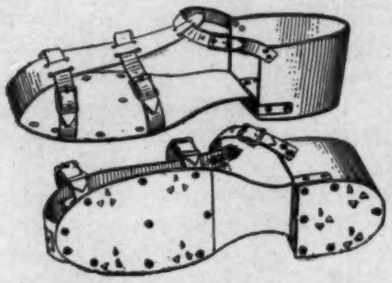
As he is not acquainted with eastern business houses, Mr. Curtis requests us to announce that he is desirous of receiving catalogues with prices of materials used in his line of business, which includes the installation of warm-air furnace heating systems.

Of business—the more you know about it, the more you know there is to know about it.

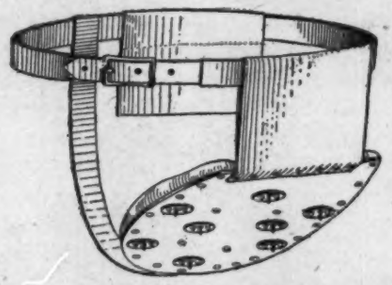
A USEFUL SHINGLING KIT.

The Coldwater Specialty Mfg. Co. have opened an office at 134 Lake St., Chicago, where they keep on hand a complete stock of their specialties. Their roofing sandals are made of special vulcanized fiber, with full stock leather straps, and equipped with Stowe's patent anchor, there being 42 case-hardened points in each pair of sandals to cling to the roof, so that the wearer can walk on a shingle roof in safety. These sandals appeal strongly to carpenters, roof painters, lightning rod erectors, and ice cutters. The Coldwater Specialty Mfg. Co. state that they will pay for themselves many times over in a season, both as regards wear and as insurance against accident. They enable a workman to greatly increase his working capacity. There are 86 hand-turned rivets in each pair of sandals, yet, it is stated, they can be retailed at $1.50 per pair. The first illustration shows the sandals in use on the roof, the second the side and bottom of the sandals, and the third the company's non-slipping saddle for roof work. The system of advertising adopted by the Coldwater Specialty Mfg. Co. enables them to make a "sales guaranteed" contract so that their customers run no risk of having unsalable stock on hand. This applies not only to the sandals but to the roofing saddle as well. The latter is so arranged that the operator may shift it from one hip to the other without adjusting, thus affording a safe and comfortable seat and precluding the possibility of the worker's clothing becoming torn or badly worn. A nail pocket in the saddle is a great convenience. The saddle not only adds materially to a roofer's efficiency, but it tends to relieve him of that tired feeling brought about by a day's work on a roof. The Coldwater Specialty Mfg. Co. assert that the saving on a workman's clothing, to say nothing of his cuticle, will pay for a saddle ten times over in one season. The company will be pleased to furnish further particulars regarding the specialties here referred to. When writing, kindly mention THE AMERICAN ARTISAN.

Cut Showing Sandals in Use on Roof.



Side and Bottom of Sandals.



Non-Slipping Saddle For Roof Work.

"TONCAN" METAL SHEETS.

The Stark Rolling Mill Co., Canton, Ohio, are calling the attention of the trade to their "Toncan" metal sheets, black and galvanized, guaranteed to be rust-resisting and anti-corroding. These sheets are peculiarly adapted for conductor pipe, roofing, metal window frames, cornices, ridge roll, ventilators, skylights, eaves trough, siding, etc. The manufacturers state that this material costs less than charcoal iron and not much more than steel, and that it will work up as well as open hearth steel. It is guaranteed against cracking and breaking. The Stark Rolling Mill Co. will be pleased to forward a booklet describing "Toncan" metal sheets, upon request. When writing, kindly mention THE AMERICAN ARTISAN.

THE BERGER MFG. CO. ESTABLISH A CHICAGO STORE.

The Berger Mfg. Co., Canton, Ohio, have opened a store at 33 Dearborn street, Chicago, a step made necessary by the increasing demand in this section for their very extensive line of sheet metal goods. They will now be in a better position than heretofore promptly to meet the demands of the trade in Chicago and contiguous territory.

STEWART ENAMELED WARE.

The Stewart Stamping Co., Moundsville, W. Va., report an increasing demand for their Stewart enameled ware. The company, they state, was organized nearly two years ago with the idea of making a better grade of enameled ware than had ever been produced in the country. The success of the organization is evidenced, they say, by the fact that they have almost completed and will soon add to their present extensive plant at Moundsville another large factory, doubling their capacity. Their splendid factory organization, modern equipment, personal supervision and exclusive processes, are cited as a guarantee of the beauty, elasticity of finish and superior quality of their ware. When writing The Stewart Stamping Co., kindly mention THE AMERICAN ARTISAN.

TANNER'S TESTED HAND-MADE TINWARE.

Tanner & Co., "The Quick Shippers," Indianapolis, Ind., are calling the attention of the trade to Tanner's Tested Hand-Made Tinware, which they declare to be of superior quality and to be unexcelled by any similar ware now on the market. The company states that while some makers turn out goods of inferior quality, they sell only the very best in the tinware line. Their line embraces the following: 22 kinds of wash boilers; 15 kinds of coffee pots and boilers; open and covered buckets; dinner pails; tea kettles; flaring buckets; strainer pails; minnow pails; sprinklers; lard cans; and a full line of pieced ware, double seamed by

hand, soldered inside, and hot water tested. They call particular attention to their wash boilers with 16-ounce copper bottoms. These boilers are made of the highest grade charcoal plate, with rims of 5/16-inch rod. The covers are hand made, and the boilers are provided with enameled handles with hooks. When writing Tanner & Co. for prices, kindly mention THE AMERICAN ARTISAN.

GALVANIZED IRON IN URUGUAY.

Consul Frederick W. Goding, of Montevideo, in the following report shows the large and growing demand in Uruguay for galvanized roofing. He says:

"A few years ago the buildings in the cities and towns in Uruguay were built wholly of brick, with tile roofs, those in the interior being made of sod and roofed with thatch. As early as 1895 shipments of galvanized iron began to arrive here, the total for 1895-96 being only 7,954 tons. From its inception the trade gradually developed, as the people learned of the superiority of iron over thatch as a roofing material, until at the present time many warehouses, stables, and even cheap dwellings are made of it in this city. The country people, on becoming acquainted with its value, began the use of it as a covering for their buildings, as the thatching rotted away, so that now it is practically the only material used for roofs of the outbuildings on the farms, as well as those of the houses occupied as dwellings by the smaller farmers. One sees these quaint buildings everywhere while passing through the agricultural districts, the sods being neatly laid over each other with the iron roof over all. The use here of galvanized iron as a roofing material has become permanent, and is increasing every year.

"From private sources it is learned that about 100,000 tons of galvanized iron were imported into Uruguay in 1908. This trade is rapidly growing, 95 per cent of which is in the hands of British merchants, for the reason that, having representatives on the spot, the need for the material was foreseen and provided for by them. The first shipment of 50 tons of this iron from the United States was made at the time of the opening of direct communications with Montevideo, which sold well, proving in every way equal to the British product.

"The importance of the subject seemed to demand the preparation of this report in order to draw the attention of American manufacturers to this promising territory. All the importers of galvanized iron here were interviewed and expressed themselves unreservedly on the question, mentioning that the French consul has requested similar information, probably in connection with the mission of the French commercial agent, now visiting this country. They agreed that the trade was growing, soon to reach enormous proportions, owing to its rapidly increasing use as a material for roofs, buildings, bath tubs, buckets, etc. The reasons given for not purchasing in the United States were on account of a lack of knowledge of the American article, the 5 to 10 per cent higher prices, the more costly transportation, and the quotations being f. o. b. Montevideo, whereas they should be f. o. b. at the loading port in the United States, allowing the purchaser to obtain the best freight terms. They all called attention to the better communications with Great Britain, stating that that alone encouraged trade, the lack of which lessened the chances of competing nations.

"The sizes most commonly used here are 6 by 3 feet, both corrugated and plain, although other sizes are always kept in stock. The duties and charges here are $92.63 per ton of 2,000 pounds, which includes all of the additional minor duties and charges.

"Seven-tenths of 1 per cent is the proportion of this trade enjoyed by the United States. The reason for this infinitesimal part is easily understood. English saws were the only ones used in many foreign countries until the Disston tool forced its way into public favor by its superior qualities; the use of the American ax has become world-wide for the same reason; none but English-made files were believed to be of any value until American files made their globe-encircling expeditions into every civilized country and many others uncivilized. Many other similar instances might be mentioned showing that success was due to forcing the good qualities of the goods upon the notice of consumers. Everywhere the British claims of superiority of their goods were overthrown when met with a superior article. The Uruguayan market must be worked in the same systematic manner. Otherwise it will remain in other hands.

"Many letters have been received at this office in which requests were made to have catalogues distributed. The money expended in printing them might better have been saved for other uses, as no results would follow. Well-trained Spanish-speaking salesmen should be sent to these countries, who will be in a position to supply the much-needed knowledge of American goods and be prepared to offer prices equal to those given by competing firms. Also better shipping facilities are imperatively demanded, with reduced freight charges.

"The correction of these faults and an energetic, persistent campaign will cause a large proportion of the galvanized-iron trade of Uruguay to pass into the hands of American exporters."

TO SOLDER ALUMINUM.

There is no solder which operates with aluminum in the same way that ordinary solders operate with copper, tin, etc. There are two reasons for this. Aluminum does not alloy readily with solders at temperatures as low as the other metals require, and it is consequently necessary, in soldering aluminum, to use a much higher temperature. Furthermore, aluminum alloys with lead only with great difficulty, and with but a small proportion of lead at that; consequently, lead solders are useless with aluminum. The surface of all aluminum is covered with a thin, invisible coating of aluminum oxide. This coating forms instantly on the surface of aluminum, and is very refractory; and its presence is responsible for the high resistance of aluminum to corroding agents, since, although aluminum itself is soluble in a great many chemical compounds, this protective coating of oxide is insoluble in almost everything excepting hydrofluoric acid. While in general this coating of oxide is beneficial,

in that it forms a perfect protection to the aluminum underneath, it is, by reason of its efficiency in this particular, responsible for the principal portion of the difficulty which occurs in soldering aluminum, as naturally no solder will alloy with aluminum oxide.

NOTES AND QUERIES.

ADDRESS OF GEO. L. MESKER & CO.

From St. Paul Roofing, Cornice & Ornament Co., St. Paul, Minn.

Will you please give us the full name and the address of a Mesker & Co., or Mesker & Bro., located in some town in Indiana?

Ans.—Geo. L. Mesker & Co., Evansville, Indiana.

CENTER HUNG SASH WEIGHTS.

From H. G. Lewis Hardware Co., Portage, Wis.

Please send us the names of firms that make center hung sash weights.

Ans.—Raymond Lead Co., 47 Clinton St., Chicago; E. W. Blatchford Co., 70 N. Clinton St., Chicago; Johnston & Jennings, 30th and Morgan Sts., Chicago.

VACUUM CARPET CLEANERS.

From A. J. Ross, Cambridge, Illinois.

Can you tell me who manufactures vacuum carpet cleaners?

Ans.—Vacuum Cleaner Co., 72 Trinity Place, New York City; Spencer Suction Cleaner Co., Hartford, Connecticut; General Compressed Air Vacuum Machinery Co., St. Louis, Missouri.

PLUMBERS' AND STEAMFITTERS' TRADE PAPER.

From W. J. Schmidt, La Moure, N. D.

Please give me the address of a good plumbers' and steamfitters' trade paper.

Ans.—Domestic Engineering, 13 N. Jefferson St., Chicago.

MATTHEWS' GASOLENE GAS LIGHTING CARBURETORS.

From Altorfer & Co., Roanoke, Ill.

Will you kindly give us the address of the manufacturers of the Matthews' Gasolene Gas Lighting Carburetors for house lighting?

Ans.—Matthews Gas Machine Co., 40 Dearborn St., Chicago.

IOWA HARDWARE MUTUAL INSURANCE ASSOCIATION.

From O. R. Gates, Independence, Iowa.

Please give me the address of the Iowa Insurance Association.

Ans.—Iowa Hardware Mutual Insurance Association, A. R. Sale, Secretary, Mason City, Iowa.

TIN FURNACE PIPE AND FITTINGS.

From John Droegkamp Co., 1515 Fond du Lac Ave., Milwaukee, Wis.

Kindly give us the address of the manufacturer of tin furnace pipe and fittings, located in Toledo, Ohio.

Ans.—Perfection Furnace Pipe Co., Toledo, Ohio.

ANGLE AND BAND IRON BENDING MACHINES.

From Consolidated Sheet Metal Works, Milwaukee, Wis.

Will you kindly give us the name of a manufacturer of angle and band iron bending machines?

Ans.—Commercial Mfg. Co., Cleveland, Ohio; J. F. Kidder Mfg. Co., Burlington, Vt.; The Bassett-Presley Co., Cleveland, Ohio; J. M. Robinson Mfg. Co., Cincinnati, Ohio; Niagara Machine & Tool Works, Buffalo, N. Y.; Bertsch & Co., Cambridge City, Ind.; Nappanee Iron Works, Nappanee, Ind.

"AUTOFORCE" VENTILATORS.

From McQuesten & Sawyer Co., Muscatine, Ia.

Will you please give us the address of the firm who manufactures the "Autoforce" Ventilator?

Ans.—Natural Autoforce Ventilator Co., 53 Devonshire St., Boston, Mass.

NICKEL PLATING PLANTS.

From Reid Stove Works, Quincy, Ill.

Will you kindly give us the address of manufacturers that furnish Nickel Plating Plants?

Ans.—Zucker & Levett & Loeb Co., 526 W. 25th St., New York City.

ITEMS.

F. W. Beach who had charge of the tin plate department of The Bassett-Presley Co., Cleveland, Ohio, has associated himself with The J. M. & L. A. Osborn Co. of Cleveland, and will have entire charge of their sales department. Mr. Beach is probably as well posted in the sheet metal line as any man in the country. Previous to his connection with The Bassett-Presley Co., he was sales manager for the McIntosh Hardware Corporation of Cleveland for two years, after having served this concern for a number of years as traveling salesman. Mr. Beach is to-day one of the most popular men in the sheet metal business.

WEBSTER'S INTERNATIONAL DICTIONARY.

G. & C. Merriam Co., Springfield, Mass., state that their Webster's International Dictionary is a book in which there are many books, and that it answers with final authority all kinds of questions in the trades; arts and sciences, geography, language, biography, etc. It contains 2,380 pages, 5,000 illustrations, and in it are 25,000 words which have recently been added. Webster's International Dictionary is recognized by the Courts, Schools and Press as the one great standard lexicon. The plan of contents of the big book is as follows: Colored Plates, Flags, State Seals, etc.; Brief History of the English Language; Guide to Pronunciation; Scholarly Vocabulary of English; Dictionary of Fiction; Gazetteer of the World; Biographical Dictionary; Scripture Proper Names; Greek and Latin Names; English Christian Names; Foreign Words; Abbreviations. When writing G. & C. Merriam Co., kindly mention THE AMERICAN ARTISAN.

SWAMPED WITH REPLIES.

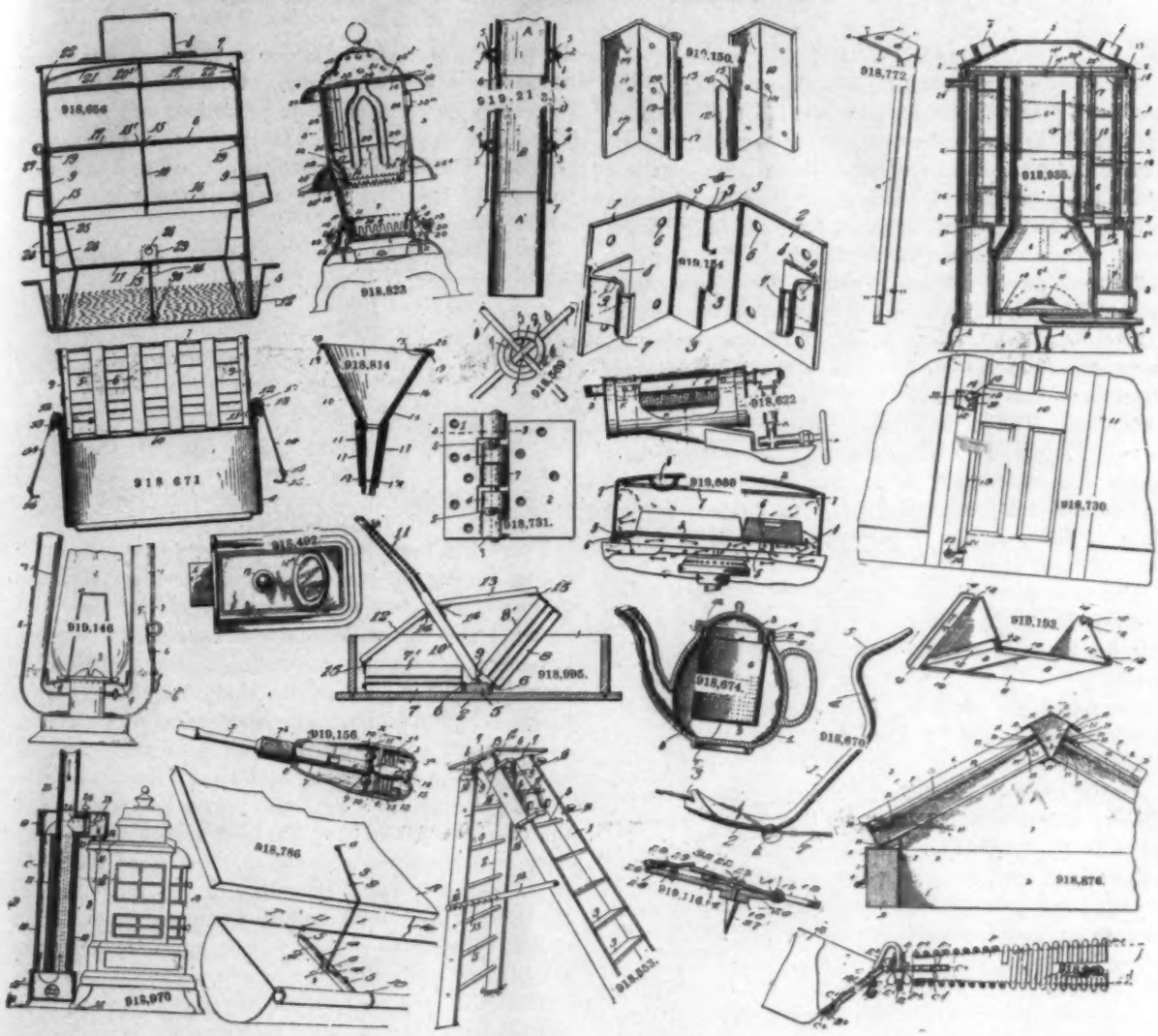
To THE AMERICAN ARTISAN:

You may discontinue my advertisement as I have been swamped with replies. I can't say too much of your paper, as it brought more results than I had expected. C. M. WARD.

Kingston, Ill., April 17, 1909.

All worth-while opportunities you will ever get in this world lie within your own capacity to do the work at hand, thoroughly and well.

NEW PATENTS.



918,492. Rim-latch. Peter F. Augenbraun, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed May 22, 1908. Serial No. 434,404.

918,553. Extension Step-ladder. Eva M. Hoppe, Sparta, Ill. Filed Sept. 10, 1908. Serial No. 452,385.

918,569. Fence-tie. William A. Martin, Jackson, Mich., assignor of one-half to Edwin H. Ehrich, Jackson, Mich. Filed June 30, 1908. Serial No. 441,094.

918,622. Gasolene-burner. William Whelan, St. Joseph, Mo. Filed Aug. 6, 1908. Serial No. 447,220.

918,656. Steam-cooker. Nial N. Chase, Peoria, Ill. Filed Sept. 16, 1908. Serial No. 453,298.

918,670. Wire-fence Tool. Samuel Guth, Washington, Ill. Filed Feb. 18, 1903. Serial No. 143,985.

918,671. Washboiler. Geo. J. Hach, Fred Hach and Henry Bosch, St. Louis, Mo. Filed April 4, 1908. Serial No. 425,270.

918,674. Filtering Mechanism. George H. Hathaway, Chicago, Ill. Filed March 16, 1908. Serial No. 421,476.

918,730. Door-opener. Kimbell I. Bronson, Rice Lake, Wis. Filed April 20, 1908. Serial No. 428,169.

918,731. Hinge. Charles L. Brooks, Charlottesville, Va. Filed Oct. 16, 1906. Serial No. 339,155.

918,772. Sash-cord Holder. Fred A. Saunders, Winchester, Mass. Filed July 29, 1908. Serial No. 445,889.

918,786. Gutter-hanger. Edward D. Southwick, Granite City, Ill. Filed Oct. 1, 1908. Serial No. 445,700.

918,814. Funnel. Charles R. Barney, Chicago, Ill., assignor to Handy Manufacturing Company, Chicago, Ill., a corporation. Filed Oct. 30, 1907. Serial No. 399,837.

918,823. Heating-stove. Edwin R. Cahoone, Troy, N. Y. Filed Dec. 11, 1905. Serial No. 291,337.

918,876. Skylight. John J. Mayer, Atlanta, Ga., assignor to Dowman-Dozier Manufacturing Company, Atlanta, Ga., a corporation of Georgia. Filed April 17, 1907. Serial No. 368,665. Renewed March 8, 1909. Serial No. 482,174.

918,935. Heater. John S. Walker and Sylvester N. Wilcox, Pittsburg, Pa. Filed Jan. 23, 1908. Serial No. 412,282.

918,939. Detachable Handle for Frying-pans and Other Culinary Vessels. David T. Abercrombie, Newark, N. J. Filed June 17, 1908. Serial No. 438,953.

918,970. Fuel-economizer. Fred W. Conmey, Wyoming, Iowa. Filed May 26, 1908. Serial No. 435,049.

918,995. Washing-machine. Albert Gates, Yuma, Ariz. Filed Sept. 25, 1908. Serial No. 454,717.

919,060. Flat-iron Heater. John J. McCarthy, Newport, Ky. Filed Dec. 29, 1908. Serial No. 469,787.

919,116. Trap. Harry Barber, Olmstead, Ill. Filed Jan. 24, 1908. Serial No. 412,483.

919,146. Tubular Lantern. William C. Embury, Rochester, N. Y., assignor to Embury Manufacturing Co., Rochester, N. Y., a corporation of New York. Filed Dec. 8, 1908. Serial No. 466,548.

919,150. Blind-hinge. John H. Garber, Arritts, Va. Filed Sept. 20, 1906. Serial No. 335,479.

919,154. Blind-hinge. Anthony Gen, Bunkie, La. Filed Oct. 17, 1908. Serial No. 458,260.

919,156. Bit-stock. Charles B. Gilmore, Springfield, Ill., assignor of one-half to John F. White, Bloomington, Ill. Filed Aug. 15, 1908. Serial No. 448,676.

919,193. Ventilator. August Vander Linden, Hayward, Wis. Filed June 12, 1908. Serial No. 438,189.

919,213. Stovepipe-coupling. Ebenezer C. Ramsey, Warrensburg, Mo., assignor of one-fourth to Nesbitt H. Robinson, Langdon, Mo. Filed Feb. 14, 1908. Serial No. 415,955.

Trade Report.

HARDWARE.

There is a fair amount of business doing in the hardware market. Trade, however, has not increased as rapidly as was expected by some earlier in the month and consumers are still showing caution about committing themselves particularly over an extended period. The aggregate of small orders is fairly large, but these do not have the stimulating effect that the large ones have. Prices generally are being pretty well maintaind, though on some lines concessions are reported. The demand in the Western market is, however, quite heavy, and the activity of building operations has stimulated the demand for builders' hardware. The demand for wire nails is not very heavy. Prices on wire products, while not officially lower, are understood to be considerably easier and concessions are freely reported. The demand for cut nails is light, though a fair spot business is doing. Barb wire is quiet.

The base price of wire nails at the mill for jobbers is $1.90 per keg. The base price is $1.95 at the mill for full carloads and $2 at the mill for less than carloads. The base price of cut nails at the mill for jobbers is $1.80 per keg. The base price is $1.85 for full carloads at the mill, and $1.90 for less than carloads at the mill.

In the Chicago market wire nails are quoted as follows: Wire nails, jobbers' car lots, $2.08; retailers' car lots, $2.13; $2.20 out of store; painted barb wire, jobbers' car lots, $2.23; retailers' car lots, $2.28, with 30 cents for galvanizing; plain wire to jobbers in car lots, $1.93, and to retailers in car lots, $1.98.

TIN PLATE.

Tin plate remains firm and fairly active. The canning interests are busier and the general tone is cheerful. The American Sheet & Tin Plate Co. is operating about 95 per cent of capacity while the independents are operating close to 90 per cent. On the whole, the tin plate market is showing a marked degree of activity. For 100-lb. I. C. coke plates, the price is $3.45 Pittsburg, subject to a rebate of 5 cents per box on large orders.

Quotations are as follows:

American coke tin, I. C., from store, New York:	
Bessemer steel, 100 lbs., 14x20	$3.95@4.00
Bessemer steel, 95 lbs., 14x20	3.85@3.90
Bessemer steel, 90 lbs., 14x20	3.75@3.80
Am. charcoal terne, 8-lb. coating:	
Worcester grades, 14x20, 107 lbs	4.05@4.10
Worcester grades, 14x20, 100 lbs	3.90@3.95
Worcester grades, 20x28, 200 lbs	7.75@7.85
For prompt shipment, f. o. b. mill:	
Coke, tins, 14x20, I. C	3.60@3.65
Coke, tins, 14x20, 100 lbs	3.45@3.50
Coke, tins, 14x20, 95 lbs	3.40@3.45
Coke, tins, 14x20, 90 lbs	3.35@3.40
Charcoal, terne, 20x28, I. C	7.05@7.10
Charcoal, terne, 20x28, 200 lbs	6.75@6.80

Usual difference for odd sizes and weights.

SHEETS.

There is not much change in the sheet market and the amount of business is not as heavy as was being transacted a few weeks ago. Concessions are being frequently reported on plain galvanized and corrugated roofing sheets. Black sheets are comparatively regular. The leading interest is operating at about 65 per cent of capacity, while many of the independents are running to 75 per cent.

The following are New York prices for 500-bundle lots and over, f. o. b. mill:

Gauge:	Galvanized, Net.
No. 30	$3.55
No. 29	3.45
No. 28	3.25
No. 27	3.15
Nos. 25 to 26	2.95
Nos. 22 to 24	2.75

COPPER.

There has been very little change to note in ingot copper during the past week, and prices are about on the basis that has prevailed most of the time this month. The export demand was expected to be quiet, but there is evidently considerable disappointment in regard to the failure of the domestic consumers to take hold more freely. The best grades of Lake copper are still quoted around 13c, with electrolytic at 12.60@12.65c and casting brands at 12.50@12.55c.

It is claimed that the consumption has now passed the production, and that the next report of the Producers' Association is likely to show some reduction in the surplus stock. President M. E. Appelbaum of the New York Metal Selling Company says: "The export deliveries for April will be, approximately, 12,000,000 lbs. more than for March. The domestic deliveries will be slightly above the March figure. This would mean that in April the total deliveries will be approximately 12,000,000 lbs. more than in March, while the production, if it should increase, would very likely be a question of a few million pounds, so that for the first time, the statistical position ought to show more copper delivered than produced.

There has been no change in sheet copper, the base price being 18c. Yellow metal is unchanged at 17c for dimensions, 15c for sheathing and sheathing nails, 16c for slating nails and 17c for keel and stem metal.

Extreme fluctuations for the year:

	Highest.	Lowest.
Lake	14.55	12.55
Electrolytic	14.25	12.12½
Casting	14.12½	12.00
London, spot	£64 2 6	£54 12 6
London, future	64 17 6	55 10 0
London, best selected	67 15 0	59 0 0

SPELTER.

Spelter is quiet and a little easier in the New York market at 5.05c for spot and May delivery. The St. Louis market is quiet and easy at 4.90@4.95c.

FINISHED STEEL.

There is more activity in the market for finished steel, the total sales for the past week by the leading

makers being estimated at fully 400,000 tons. Included in this are orders for 110,000 tons of standard steel rails, 70,000 tons of billets, 50,000 tons of structural and fabricated steel, 40,000 tons of wire products, 25,000 tons of soft steel bars, 40,000 tons of steel plates, and a heavy tonnage of steel pipe and tin plate.

On April 27 the Carnegie Steel Co. of Pittsburg announced an increase in prices of their products, with the result that other steel manufacturers are reported to be doing the same. It is stated that the reduction recently made resulted in so many orders that many of the manufacturers are crowded with work and the advance has been the natural result of the growing demand. The Jones & Laughlin Steel Co., the largest of the independent steel makers, has followed the example of the Carnegie Steel Co. and increased prices about a dollar a ton. Some of the manufacturers claim to have been selling below the actual cost of production and are glad to see the increase. From this it may be inferred that buying of steel will become more active, as is usually the case when the market takes an upward turn.

PIG IRON.

There has been a very good movement lately in pig iron, especially in the South, where it is reported that the sales for the past month have reached 100,000 to 150,000 tons. Some reports say that the sales at Birmingham for the past six weeks will foot up fully 250,000 tons. If the latter is not exaggerated, it means that the sales during that period were in excess of the production.

In other sections the iron makers have not been quite so fortunate, but there is no doubt there is a constantly broadening market, and that more iron is now selling than has been the case since last November. At that time there were large sales, but the iron then bought has now been pretty well liquidated and consumers have been forced to come into the market for further supplies. The northern furnaces appear to have maintained their prices better than the southern people, but it has been at the expense of the business.

There is a decidedly stronger tone to the Alabama market, and it is certain that no tonnage of any moment can now be bought at less than $11.50 ton, with some of the furnaces unwilling to sell at that figure. The market quotations f. o. b. Birmingham would be $11.50@12 ton. The Virginia furnaces are holding their product very firmly, though they are not selling much iron at the top prices. The current quotation is about $14@14.50 ton, Roanoke. Pennsylvania iron is also pretty steady, especially for delivery after July 1. It is reported that prices have been shaded a little for prompt shipment.

Stocks of pig iron in the South have been very much reduced by the recent sales, and most of the furnaces have no surplus iron to worry about. The northern furnaces are not so well situated, and iron has been accumulating. The recent movement has taken care of some of the surplus, but the situation is still serious. Some of the furnaces have been blown out, and others have been stacking a good deal of iron since the first of the year.

CHICAGO MARKET.

Lake Superior charcoal	$19.50@20.00
Northern foundry No. 1	17.00@17.50
Northern foundry No. 2	16.40@16.85
Northern foundry No. 3	16.00@16.50
Southern foundry No. 1	16.35@16.85
Southern foundry No. 2	15.85@16.35
Southern foundry No. 3	15.35@15.85
Southern foundry No. 4	14.85@15.35
Southern No. 1, soft	16.35@16.85
Southern No. 2, soft	15.85@16.35
Southern gray forge	13.85@14.35
Southern mottled	13.60@14.10

PITTSBURG MARKET.

Bessemer, valley	$14.75@15.00
Bessemer, Pittsburg	15.65@15.90
No. 2 foundry, Pittsburg	14.90@15.15
Gray forge, Pittsburg	14.40@14.65
Basic, valley	14.00@14.25
Basic, Pittsburg	14.90@15.15

BIRMINGHAM MARKET.

No. 1 foundry	$11.50@12.00
No. 2 foundry	11.00@11.50
No. 1 soft	11.50@12.00
No. 2 soft	11.00@11.50

Rogers, Brown & Co., Cincinnati, say in their weekly report:

"Lively buying in this territory with more general interest and larger tonnage contracted than any time since last November, is the character of the week. The disappearance of extremely low figures on both Northern and Southern iron have steadied the market and given it an incentive which it has hitherto lacked. Pipe makers and general foundry trade have developed a good tonnage with the continuing scarcity of low grades.

"The condition in the Cincinnati territory is but a reflection of that reported elsewhere, and the pig iron market in consequence has assumed an entirely different character. There is still a range in prices, due to some interests having refused to meet recent low figures on account of their high cost, and who are now holding above the market and expect the market to meet their price inside of the next week or two.

"It is well to note the continued reports of production which show it is not as great as was figured it would be, and there is prospect of its remaining almost stationary, or if any change, a reduction. This with the slowly increasing melt lends excellent support to a healthy market. There is quite a fair tonnage still under offer, but prices are being made for immediate acceptance; in some instances have been withdrawn before they have been accepted by buyers. The Southern situation has improved and appears to be firmly established on the $11.50 basis.

"There continues to be good activity in finished steel products and some advances are reported.

"There is small change in coke production, with a slight increase in shipments, and prices stationary."

Matthew Addy & Co., Cincinnati, say in their weekly report:

"The activity displayed in pig iron during the last two weeks continues and many thousands of tons have been sold during the past few days. This applies not only to Northern iron but to Southern as well and to all grades including Foundry, Bessemer and Basic. Ohio foundry irons have been selling in liberal quantities and consequently the furnace men are feeling good and their ideas of price are becoming very much firmer.

"In the South prices are now on a comparatively uniform basis—the $11.00 iron has all been disposed of and $11.50 is undoubtedly the lowest quotation that is being made today. A majority of the largest furnace interests in Alabama holding their product at this figure are willing to sell through the entire year, while conservatives are asking $12.00. These are people who are in position to hold off on sales for a while and who expect that the last half will see very much better prices. There is a general feeling of confidence and optimism.

"Agricultural implement manufacturers are busy and have been buying in great quantities; pipe interests have placed large contracts and the foundry trade generally seems to have awakened. It is a pleasure to note that the present buying movement is extending to the small as well as to the large consumers. The foundryman who uses a car a month is coming into line with the one who uses 1,000 tons; this is a good indication.

"There is nothing exciting—just good, steady judicious buying of both pig iron and coke. The spring sunshine seems to have put warmth and new life into the blood of pig iron which has been too long dormant."

Current Hardware and Metal Prices.

THE AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing western hardware and metal prices corrected weekly.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	14x20	$6 40
IX	14x20	7 45
IXX	14x20	8 60
IXXX	14x20	9 85
IXXXX	14x20	11 00
IC	20x28	13 70
IX	20x28	15 70
IXX	20x28	18 15
IXXX	20x28	20 55
IXXXX	20x28	22 95

COKE PLATES.

Cokes, 180 lbs	IC	20x28	$ 8 5
Cokes, 200 lbs	IC	20x28	9 00
Cokes, 216 lbs	IC	20x28	9 50
Cokes, 270 lbs	IX	20x28	11 25

PIG IRON.

North'n Fdy., No. 1	$17 00@$17 50
North'n Fdy., No. 2	16 50@ 17 00
North'n Fdy., No. 3	16 00@ 16 50
Southern Fdy., No. 1	16 35@ 16 85
Southern Fdy, No. 2	15 85@ 16 35
Southern Fdy., No. 3	15 35@ 15 85
Southern Fdy., No. 4	14 85@ 15 35
Southern No. 1 Soft	16 35@ 16 85
Southern No. 2 Soft	15 85@ 16 35
Southern Gray Forge	14 85@ 15 35
Southern Mottled	14 60@ 15 50
Lake Sup. Charcoal	19 50@ 20 00
Southern Silveries, 4% Silicon	17 60@ 18 10
Southern Silveries, 5% Silicon	18 10@ 18 60
Southern Silveries, 6% Silicon	18 60@ 19 10
Jackson Co. Silveries, 6 per cent	19 40@ 19 90
Jackson Co. Silveries, 8 per cent	21 40@ 21 90
Jackson Co. Silveries, 10 per cent	21 40@ 21 90
Malleable Bessemer	16 50@ 17 00
Standard Bessemer	17 40@ 17 90
Alabama Basic	16 85@ 17 35

BLACK STEEL SHEETS.

No. 12	per 100 lbs.	$2 20@$2 30
No. 14	per 100 lbs.	2 25@ 2 35
No. 16	per 100 lbs.	2 35@ 2 45
Nos. 18-20	per 100 lbs.	2 60@ 2 65
Nos. 22-24	per 100 lbs.	2 65@ 2 70
No. 26	per 100 lbs.	2 70@ 2 75
No 27	per 100 lbs.	2 75@ 2 80
No 28	per 100 lbs.	2 85@ 2 95

GALVANIZED

No. 10	per 100 lbs.	$3 05@$3 10
Nos. 12-14	per 100 lbs.	3 05@ 3 10
No. 16	per 100 lbs.	3 05@ 3 10
Nos. 18-20	per 100 lbs.	3 15@ 3 25
Nos. 22-24	per 100 lbs.	3 30@ 3 35
No. 26	per 100 lbs.	3 50@ 3 55
No. 27	per 100 lbs.	3 70@ 3 75
No. 28	per 100 lbs.	3 90@ 4 00

POLISHED SHEET STEEL.

No. 24	per 100 lbs	$4 90
No. 26	per 100 lbs.	5 00
No. 27	per 100 lbs.	5 10
No. 28	per 100 lbs.	5 20

SMOOTH STEEL.

Wood's Smooth, No. 20		$3 05
" "	No. 22-24	3 10
" "	No. 25-26	3 15
" "	No. 27	3 20
" "	No. 28	3 30

PATENT PLANISHED SHEET IRON.

Patent Planished Sheet Iron, ..."A" $10.20,"B" $9 20

PATENT PLANISHED SHEET STEEL.

Mckey Planished Sheet Steel.....8½c

SOLDER.

XXX Guaranteed ½ & ½	per lb. 18 c
Commercial ½ & ½	per lb. 17½c
No. 1 Plumbers	15½c

SHEET ZINC.

500 lb. Casks	case, per cwt. $7 15
300 lb. Casks	per cwt. 7 15
Sheets	per cwt. 7 15

COPPER.

Copper sheet, 100 lbs. over, base...17c

TIN PIGS AND BARS.

Banca, pigs, per lb	29 c
Straights, pigs, per lb	29 c
Straights in bars, per lb	33 c

LEAD.

American Pig	4.37½@4.40
Bar	4.37½@4.40
National (White) brands (in less than 100 lb lots), per lb	8½c

Sheet.

Full coils	per 100 lbs. $9 00
Cut coils	per 100 lbs. 9 50

HARDWARE.

ADZES.

Carpenters'.

Plumbs	40%

Coopers'.

Barton's	15%
White's	15%

Railroad

Plumbs	40%

Ship.

Plumbs	40%
White's	15%

AMMUNITION.

Caps, Percussion—per 1,000.

F. L Waterproof, 1-10s	40c
G D	35c
Musket	60c

Shells, Loaded—

Loaded with Black Powder	40%
Loaded with Smokeless Powder, medium grade	40 & 5%
Loaded with Smokeless Powder, high grade	40 & 10 & 10%

Union Metallic Cartridge Co.:

New Club, Black Powders	40%
Nitro Club, Smokeless Powders,	40 & 5%
Arrow, Smokeless Powders	40 & 10 & 10%

Winchester:

Smokeless Repeater Grade	40 & 5%
Smokeless Leader Grade	40&10&10%
Black Powder	40%

Gun Wads—per 1,000.

Winchester Gun Wads	15%

Powder.

		Each.
DuPont's Sporting, kegs		$5 50
" "	½ kegs	2 90
" "	¼ kegs	1 60
Dupont's Sm'k'less	50-lb. drum	22 75
" "	25-lb. kegs	11 30
" "	12½-lb. kegs	5 80
" "	6½-lb. kegs	2 97
"	1-lb. cans	52

Shot.

Drop shot, sizes smaller than B, 25-lb. bags, per bag	1 95
Drop shot, B and larger sizes, 25-lb bags, per bag	2 20
Buck Shot, 25-lb. bags, per bag	2 20
Chilled Shot, 25-lb. bags, "	2 20

ANCHORS

Expansion Screw Anchors	10%

ANVILS

Trenton, 70 to 80 lbs	9½c per lb
Trenton, 81 to 150 lbs	9½c per lb

ASBESTOS.

Board and Paper	33⅓%

AUGURS.

Boring Machine	70%
Irwin's	40&10%
Carpenter's Nut	70%
Hollow.	
Bonney's—list $30.00	75&5%
Stearns, No. 3	36 00
Post Hole.	
Digwell, 8-inch	per doz. 12 50
Iwan's Post Hole and Well	40%
Vaughan's, 4 to 9-in., per doz.	6 00
Rafting.	
Snell's	50&5%
Ship.	
Ford's, with or wi'out screw	40-10%
Snell's " " "	40-5%

AWLS.

Brad.		
No. 3 Handled	per doz.	$0 40
No. 1050 Handled	"	90
Shouldered, assorted, 1 to 4,	per gro.	$1 20
Patent asst'd, 1 to 4	"	85
Harness.		
Common	"	95
Patent	"	90
Peg.		
Shouldered	"	1 50
Patent	"	60
Scratch.		
No 1 handled	"	4 80
No. IS, socket handled per doz.		1 25
No. 7 Stanley		1 50
Sewing.		
Common	per gro.	90
Patent	"	90

AXES.

Boy's Handled.		
Lippincott, 3 lb	per doz.	$6 00
Marshall Falls City	"	5 50
Broad.		
Plumbs, West, Pat		33⅓%
" Can. Pat		35%
" Firemen's (handled)		
	per doz	$19 00
Plumbs, Miners' (handled)	"	9 00
Single Bitted (handled)		
Blood's Champion		$10 50
Blood's Dull Finished		9 00
Rough Rider		9 00
American		6 50
Perfect Premier, Forest Clipper		10 00
Duquesne		6 00
Single Bitted (without handles)		
Blood's Champion		$7 90
Blood's Dull Finish		8 00
Rough Rider		7 00
Electric Chopper		8 25
Duquesne		5 50
Crown		6 25
Double Bitted (without handles).		
Blood's Champion, 3½ to 4½ lbs. per doz		$10 00
Flint Edge	" "	9 75
Perfect Premier	" "	11 00

The above prices on axes of 3 to 4 lbs. are the base prices.
3½ to 4½ lbs advance 25c
4 to 5 lbs. advance 50c.
4½ to 5½ lbs. advance 75c.

BAGS, PAPER NAIL.

Pounds	10	16	20	25
Per 1,000	$2.50	3.75	4.50	5.00

BALANCES, SPRING.

Frary's	40%
Pelouze	20%

BARS, CROW.

Pinch or Wedge Point..per cwt. $3 75

BASKETS.

Clothes.			
Small Willow	per doz.	$7 00	
Medium "	"	8 75	
Large "	"	10 50	
Galvanized Iron.	½ bu.	1 bu.	1½ bu.
Per doz	$4 75	6 50	8 00

BEATERS.

	Per doz.
Carpet.	
No. 13 Tinned Spring Wire	$0 90
No. 11 Spring Wire coppered	1 20
No. 10 Preston	1 10
Egg.	
No. 50 Imp. Dover	$0 75
No. 102 " " tinned	85
No. 150 " " hotel	1 50
No. 10 Heavy hotel tinned	2 10
No. 13 " " "	3 30
No. 15 " " "	3 60
No. 18 " " "	4 50

BELLOWS.

Blacksmiths'	65%
Hand.	
8-inch	per doz. $8 50
10-inch	" 10 50
Moulders'.	
12-inch	" 13 00

BELLS.

Call.	
3-inch Nickeled Rotary Bell, Bronzed base	per doz. $5 00
Cow.	
High Grade	60%
Kentucky	65&10%
Door.	Per doz.
New Departure Automatic	$6 00
Rotary.	
3 -in. Old Copper Bell	4 00
3 -in. Old Copper Bell, fancy	6 00
3 -in. Nickeled Steel Bell	4 50
3½-in. Nickeled Steel Bell	5 00
Hand.	
Hand Bells, polished	40&10%
White Metal	40%
Nickel Plated	30%
Swiss	40&33⅓%
Silver Chime	33⅓%
Miscellaneous.	
Church and School, steel alloy	50%

Farm, lbs	40	50	75	100
Each	$1.80	2.25	3.38	4.50

BEVELS, TEE

Stanley's, rosewood handle, new list	25%
Stanley's iron handle	25%

BINDING, OILCLOTH.

Zinc	80%
Brass	75%
Brass plated	75&5%

BITS.

Auger.		
Extra Double Spur		70&10%
Ford's Car and Machine		40&10%
Ford's Ship		40&10%
Irwin		50%
Russell Jenning's		25&10%
Clark's Expansive		60%
Steer's " Small list, $22.00		25%
" " Large " $26.00		25%
Irwin Car		50%
Ford's Ship Auger pattern Car		40&10%
Center		25%
Countersink.		
No. 18 Wheeler's	per doz.	$1 50
No. 20 "	"	2 25
American Snail head	"	1 00
" Rose "	"	1 00
" Flat	"	80
Mayhew's Flat	"	1 10
" Snail	"	1 25
Dowell		
Russell Jennings		25&10%
Gimlet.		
Standard Double Cut		60%
German Pattern	per doz.	$0 60
German	"	65
Gouge	"	80
Spoon	"	1 00
Countersink	"	1 20
Reamer.		
Jenning's Square	"	2 50
Standard Square	"	1 20
German Octagon	"	75
Screw Driver.		
No. 7 Commor	"	80
No. 1 Triumph	"	1 25

BLACKING, STOVE. (See Polish).

BLADES, SAW

Butchers'.
Standard, ⅞ & 1⅛-in.....40%
Clock Spring.....40%
Star.....15%
Coil.....each, $1 50

Hack.
Disston's.....25&5%
Flexible.....33⅓&5%
Star.....20&5%

Wood.
Jackson's.....per doz. $2 25
Disston's—No. 6, 16, 26 & 045.. 4 25
Triumph..... 3 50
Forest Clipper..... 3 00

BLOCKS.

Snatch.
Wooden.....60&10%
Steel.....50%

Tackle.
Iron Strapped.....70&10%
Com. Steel.....60%

BOARDS. (New List)

Stove.....50&10%

Wash.
Globe, single.....per doz. $2 50
Globe, double..... " 3 35
Memphis Globe ..... " 2 75
Crystal Glass..... " 4 00
Brass King..... " 3 75
Nickel Plate..... " 4 15

BOBS, PLUMB.

Carpenters'.
No. 2, iron.....per doz. $0 65
No. 00, " ..... " 1 30
No. 0, " ..... " 2 20
No. 3, lead..... " 2 75
No. 4, " ..... " 3 40
No. 113, brass plated.. " 1 10
No. N30, nickel plat'd. " 1 30
No. N31, " " " 1 85

BOLTS.

Carriage, Machine, etc.
Carriage, ⅜x6 and sizes smaller and shorter.....70&10%
Carriage, sizes larger and longer than ⅜x6.....60&10%
Machine, ⅜x4 add sizes smaller and shorter.....70&10%
Machine, sizes larger and longer than ⅜x⅜x4.....60&5%

Elevator.....50-10&5%
Plow.....60&10%
Stove .....80&10%
Tire.....75%
Wagon Box Strap.....70%

Mortis, Door.
Gem, iron.....60%
Gem, bronze plated.....20%

Barrel.
Cast.....60%
Wrought.....75&10%
Wrought, bronzed.....60%

Flush.
Wrought.....50&10%

Spring.
Wrought .....75&10%
Wrought, heavy.....70&10%

Square.
Cast.....50&10%
Wrought.....75&10%

BORERS.

Angular.
Miller's Falls.....per doz. $13 00

Bung.
Doz.
Enterprise Mfg. Co.'s No 1.....20%
" " " No 2.... 20%

BOXES

Mail, No.	1	2	10
Per doz.	$3.50	5.00	17.50

Miter.
New Langdon.....15&5%
Stanley's.....30%
Seavey's.....each, $1 50

BRACES.

Barber's ..... 50&10%
Fray's Genuine Spofford's.....60%
" Nos. 66 to 146.....50%
" No. 0108..... $3 50
" No. 08..... 2 75
" No. 010..... 3 00

BRACKETS.

Hay-Rack.
Wenzelmann's No. 1, per doz. $9 00
" No. 2, " 9 00

Shelf.
Cast Iron, bronzed.....50-10&5%
Clover Wrought Steel.....70&10%
Clover Folding 70%

BROILERS.

Wire.....70%
No. Crown, Self-basting, 80doz .. $2 50

BUCKETS.

Pump, Rubber.
Wychoff.....per gro. $4 75
Cooper..... " 4 75
Champion..... " 7 50
Victor..... " 9 25
Star ..... " 5 00
IXL..... " 6 75

Well.

Galv'd Qts.....	10	12	14
Per doz.....	$2.90	$3.25	$3.40

Wooden, top ear, plain, per doz. 4 00
" " swivel, " 5 10

BUCKS, SAW.

Folding.....per doz. $2 10

BURRS, RIVETING.

Copper Burrs only.....20%
Tinners' Iron Burrs only.....65&5%

BUTTS.

Cast Iron.....70&5%
Wrought Brass (New List)....40&10%
Wrought Steel, Bright.....80&10%
Wrought Steel, Japanned.
Nos. 731 and - .....70&10&10%

CALIPERS.

Double..... .35%
Inside and Outside.....35%
Wing.....30%

CALKS.

Logger's Boot.
(Lufkin R. Co.'s), per M..... $3 75

Toe.
Shoenberger.....per lb 5 c
Bessemer..... " 4½c
American..... " 7 c
Swedes..... " 8½c

CANS.

Cheese Factory.
Ontario Pattern.

Gallons.....	20	30	40
Each.....	$4.25	$5.00	$6.25

Milk.
Holstein.

Nos.....	300	301	302
Gals.....	5	8	10
Per doz.....	$17.50	$22.00	$25.60

Gem Pattern.

Nos.....	400	401	402
Gals.....	5	8	10
Per doz.....	$17.50	$21.50	$23.50

Omega Pattern.

Nos.	E. 2	E. 3
Gals.....	8	10
Per dozen.....	$23.50	$26.50

Jersey Pattern.

Nos.....	80	81
Gals.....	8	10
Per doz.....	$23.00	$27.00

CAN OPENERS.

See Openers.

CAPS, GUN.

See Ammunition.

CARPET STRETCHERS.

See Stretchers.

CARRIERS.

Hay.
Diamond, Regular.....each, $3 85
Diamond, Sling..... " 6 50
Myers' Imperial ..... " 3 85
Myers' Clover Leaf..... " 4 00

CARTRIDGES.

See Ammunition.

CASTERS.

Standard—Ball Bearing.....50&10%
Bed.....60&5%
Common Plate.
Brass Wheel.....60&10%
Iron and porcelain wheels, new list.....60&5%
Philadelphia Plate, new list.....60%
Martin's.....60%
Payson's.....75&10%

CATCHERS, GRASS.

Carroll's, No. C.....per doz. $4 25
Wildermuth's,.

Nos.....	1	2	3
Per doz.....	$5.60	$5.75	$6.25
Nos.....	4	5	6
Per doz.....	$6.75	$9.50	$10.00

CHAIN AND CHAINS.

Breast Chains.
Doubleslack.....doz. pairs, $5 75
With Covert Snaps. " 5 00
With Slide..... " 3 25
Without Slide..... " 2 85

Bright Ox Chains.
½-in. $7.25; ⅜-in. $5.45 per 100 lbs.

Cable Coil Chain.

Inch.....	5/16	½	7/16	⅜
Per 100 lbs.	$10.80	$8.00	$7.00	$6.20
Inch.....	7/16	½	⅜	¾
Per 100 lbs.	$6.00	$5.90	$5.75	$5.65
Inch.....	¾	1	1¼	
Per 100 lbs.....	$5.55	$5.55	$5.65	

Cable Log Chain.
Advance 25c per 100 lb. on Cable Coil.

Cow Tie Chains.
American, 2 toggle.....50&5%
" toggle and snap...50&5%
" open and closed ring.....50&5%

Halter Chains.
American, new list.....33⅓%
German.....60%
Niagara, new list 40%
Brown's, " 40%

Picture Chains.
Light Brass, 3 ft.....per doz. $0 75
Heavy Brass, 3 ft .... " 1 30

Pump Chain
Galvanized, per 100 lbs.....$5 50

Safety Chain.
Brass.....60%

Special Steel Loading Chain.

Inch.....	½	9/16	⅝
Per 100 lbs.....	$16.00	$13.50	$12.50

Stretcher Chains.
7/16-in. $8.50; ½-in. $7.75 per 100 lbs.

Tie-Out Chains.
Brown's.....70&5%

Trace Chains.
Western Standard.
6½— 6-2.....per pair 30c
6½— 8-2..... " 34c
6½— 8-3..... " 22c
6½—10-2..... " 38c
7 — 8-2..... " 38c
7 —10-2..... " 42c
7 —10-1..... " 48c
7 —10-0..... " 60c
Add 2c per pair for Hooks.
Add 2c " for Twist Link.

Wagon Stay Chains.

Inch.....	½	7/16	⅝
Per 100 lbs.....	$6.50	$6.00	$5.50

CHALK, CARPENTERS'.

Blue.....per gro. 75c
Red..... " 65c
White..... " 55c
Common White School Crayon..... " 10c

CHARCOAL.

In bags.....per bag 90c

CHECKS, DOOR.

Blount.....33⅓%
Sargent's.....33⅓%

CHIMNEY TOPS.

Iwan's Volcano.....50%

CHISELS.

Box.

Inches.....	10	12	14
Round per doz....	$2.10	$2.25	$2.75
Flat " ...	2.85	3.60	4.20

Cold.
Good quality, ⅜ in. and larger.....per lb. .13c
Smaller size per doz.....

Socket, Framing and Firmer.
Clover.....75&10%

Tanged, Firmer.
With handles.....30&5%

Choppers, See *Cutters, Meat.*

CHUCKS, DRILL.

Goodell's, for Goodell's Screw Drivers.....per doz. $6 25
Yankee, for Yankee Screw Drivers..... 5 00

CHURNS.

Anti-Bent Wood,

Gal.....	5	7	10
Each.....	$3.90	$4.60	$4.85

Belle, Barrel.....65&7½%

Common Dash, Gal.	4	5	6
Per doz.....	$7.75	$8.50	$10.50

Union, Gal.....	5	7	10
Each.....	$3.65	$3.90	$4.75

CLAMPS.

Adjustable.
Martin's.....30%

Carpenters'.
Steel Bar.....25%

Hose.
Sherman's, brass, ½-in., per doz.. 42c
Double brass, ⅜-in., " 90c

Saw Filers.
Disston's list, $30.00.....30%
Stearns', No. 0, $3.50; No. 1, $11.50; No. 3, $5.00 doz.
Wentworth's, No. 1, $6.00; No. 3 $8.10.

CLAWS, TACK.

Cast, wood hdle.....per doz. 45@60c
Forged steel, wood hdle " $0.80
Solid steel..... " 1 00
Giant..... " 50

CLEANERS.

Drain.
Iwan's Adjustable.....55%
Iwan's Stationary.....40&5%

Pot.
Wire.....per doz. $0 75

Side-Walk.
Steel.....per doz. $2 25
XLCR .....65&5%

CLEAVERS

Family.

Griffin, Inch.....	6	7	8
Per doz.....	$5.50	$6.75	$8.25

Royal.....per doz. 2 25

Butchers.
Plumbs.....25%

CLEVISES

Malleable.....5½c lb.

CLIPPERS.

Bolt.....$1.90@4.75

CLIPS.

Axle.....65&5%

Damper.
Standard.....per doz. 65c
Troy..... " 38c

Hame..... " 17

CLOTH

Emery.
Star.....50%
B. & A.....50%

Hardware Wire—full rolls (100 ft.)
2 to 3 incl., Galv.—in full roll... 2 75
4 and 5..... " .. 3 00
6..... " .. 3 25
7 and 8..... " .. 3 75

Screen Wire.
12 mesh, painted, per 100 sq. ft.. 1 35

COCKS AND FAUCETS.

Compression Plain Bibbs...60, 10&5%
Lever Bibb Cocks.....60, 10&5%
Compression Hose Bibbs ..50—10&5%
Telegraph Faucets (new list)..50—5%
Racking Cocks (new list)...60, 10&5%
Compression Lock C'ks(new list).70%
Andrew's Brass Faucets.....70%
Angle Plug Faucets, per doz....$0 85
Milk Can Faucets, per doz..$2.60-4.20
Petroleum Faucets .....75&5%

COLLARS, STOVE PIPE.

Inches.....	5	6	7
Plain Tin..per gro.	$1.90	$2.40	$3.50
Japanned Tin "	3.00	3.00	4.25
Lacquered Brass"	3.00	5.50	4.25

COMBS, CURRY.

Nos...	000	11	15	39	89	108
Per Doz..	$.37	.60	1.90	.90	1.15	.80
Nos...	299	220	390	532	620	1400
Per Doz.	$1.05	.85	1.35	1.20	.75	1.40

COMPASSES.

Carpenters'.....60%
Pencil—Faber's.....per doz. $1.00

COPPER—See Metals.

COPPERS.

Soldering.
1 lb.....per lb 30c
1½ lb.....31c 2 lb... " 29c
3 lb and larger..... " 26c

CORD.

Picture
White Wire (new list) .....85&10%

Sash.
Monarch Braided Flax...per lb
Silver Lake, white, 7-32 in. "
Silver Lake, white, 8-32 in. "
Keystone.....8-32 in. " 29c

CORKSCREWS.

Humason & Beckley.....33⅓%
Walker's.....33⅓%
Williamson's Regular.....40&10%
Williamson's Forged Worm.....50%

COTTERS, SPRING.

All sizes—new list.....90&20%

COUPLINGS, HOSE.

Brass.....per doz. $1 00
Brass Plated..... " 85

COVERS, WAGON—See Tents.

CRADLES, GRAIN.

Morgan's Grapevine....per doz.$22 75

CRAYONS—See Chalk.

CROW BARS.

Inch or Wedge Point.....per lb 3¼

CUTTERS.

Glass.
Red Devil.....45%
Smith & Hemenway Co.....50%
Woodward.....40%
Meat.
Enterprise, Nos. 5, 10, 12, 22, 32 and 42.....25%
No. 202, list, $1.50 ea.....40&7½
Pipe.
Stanwoods. No.... 1 2 3
Each.....$0.85 $1.50 $4
Slaw and Crout.
3-knife Crout.....per doz. $9
1-knife Slaw....." 1
2-knife Slaw....." 2
Washer.....".....7

DAMPERS, STOVE PIPE.

Jewel.....50&10%
American.....50%

DIES AND STOCKS.

Discount.....40%
King's, Little Giant.....33⅓%

DIGGERS.

Post Hole.
Acme.....per doz. $9 25
Atlas....." 9 00
Eureka.....".....7 50
Hercules.....".....10 25
Iwan's Split Handle.....".....7 50
Iwan's Perfection.....".....9 00
Iwan's Hercules pattern".....10 00
Ryan's.....".....17 00
See also Augers—Post Hole.
Dividers, Wing.....65&10%

DOOR CHECKS—See Door.

DOORS, SCREEN.

⅞ in. 4-panel, painted...per doz. $7 93
1⅛ in. 4-panel, painted...".....9 50
1⅛ in 3-panel, natural pine, fancy.....".....12 40

DOOR HANGERS—See Hangers.

DRILLS.

Bit Stock.....60&10%
Blacksmith's Twist.....60%
Breast.
Fray's No. 9.....each, $1 75
Millers Falls No. 12.....".....2 10
Hand.
Goodell's Automatic.
Nos..... 01 03 3 20
Per doz.. $7.75 $12 50 $12.50 $11.00
Goodell's Single Gear.per doz. 15 75
Millers' Falls ".....".....12 75
".....".....Double".....".....15 25
Reciprocating.
Goodell's.....per doz. 16 50
Bit Stock.
Standard List..60&5%@60%@10

DRIVERS, SCREW.

Standard.....65&10%
Lock Ferrule.....60%
Champion.....40&10%
Champion Pattern.....70%
Clark's Interchangeable.....30%
Edison.....60%
Reed's Lightning.....45&5%
Goodell's Spiral.....50, 10, 5&2½%
Yankee Ratchet.....50%
".....".....Spiral.....50&10%
Smith & Hemenway Co.....40&5%

EAVES TROUGH, GALVANIZED.

Terms, 2% for cash. Factory shipments generally delivered.

See also conductor pipe and elbows.

EGG BEATERS—See Beaters.

ELBOWS.

Adjustable Stove.
Inches..... 5 6 7
Smooth, per doz...$0.75 $0.85 $1.20
Plan'd, " 1.80 2.00 2.65
Corrugated Conductor.
Discount.....75&10%
Corrugated Stove.
Inches..... 5 6 7
Smooth, per doz..$0.85 $1.00 $1.50
Pol'd, " .. 1.40 1.65 2.25
Plan'd, " .. 2.15 2.65 3.40
Four-Piece Stove.
Inches..... 5 6 7
Smooth, per doz..$0.60 $0.35 $0.95
Planished, " .. 1.40 1 70 2.30

EMERY CLOTH—See Cloth.

EMERY TURKISH.

Size.....5-lb. pkgs. ½ kegs. kegs.
No 60 to 150, per lb.. 6c 4c 4c
Flour..... " ... 5c 3c 3c

ENAMEL, IRON.

A-B Iron Enamel, 3 doz. case, ...per gro., 15 00
Peerless.....1 25

EXTRACTORS, PIG.

See Forceps, Pig

EYES.

Bright Wire Screw—See Goods, B. W.
Drifting Pick.....60, 10&5%
Hooks and—
Brass.....50&10%
Iron.....70%

FASTENERS, STORM SASH.

Schroeder's.....per doz. $0.85
Sensible.....".....1 15

FAUCETS—See Cocks.

FILES AND RASPS.

Delta.....70&10%

FLUE STOPPERS—See Stoppers.

FORCEPS, PIG.

Superior.....per doz. $4 7[illegible]
Whisson's Imp.....".....5 2[illegible]

FORKS.

Barley.
Steel New List.....65&10%
Wood, 4-tines, per doz.....$5 0[illegible]
Coal, Coke, Cottonseed.....30%
Hay.
2-tine.....60%
3 ".....60&5%
4 ".....60&10%
Digging.....65&5%
Scoop.....30%
Header.
3-tine.....60&5%
4 ".....60&5%
Manure.
4-tine.....60%
Ore.....40%
Spading.

FRAMES.

Hack Saw.
Union.....per doz. $5 75
Jenning's adj.....".....7 50
Cast.....".....2 50

FREEZERS, ICE CREAM.

Arctic.
Qts..... 1 2 3 4 6
Each...$1.10 1.30 1.50 1.80 2.30
Qts..... 8 10 12 15
Each.....$2.95 3.80 4.50 5.20
Jack Frost.
Qts..... 2 3 4 6 8 10
Price .$1.60 1.90 2.20 2.80 3.60 4.55

GAUGES.

Butt and Rabbet.
Cream Pail.
Fairmont.....per doz. $3 75
Marking, Mortise, etc.....50&10%
Saw.
Wire.
Disston's.....25%

GIMLETS.

Discount.....35@40%

GLASS, WINDOW.

Single.....90&20%
Double.....90&25%

GLASSES, LEVEL.

GLUE.

Bulk.
B Amber.....per lb. 12
A White.....".....15
H. S. Amber.....".....16½c
Liquid.
Army & Navy.....40%
Le Page's—
List "A".....37½%
List "B".....33⅓%
List "C".....25%

GOODS.

Bright Wire.....90%

GREASE, AXLE.

Wood Boxes.
Diamond.....per gro. $5 50
Frazer's.....".....9 50
Hub Lightning.....".....5 25
Paragon.....".....6 75
Wood Pails.
Frazer's, 15 lb. 80c; 25 lb. $1.30 each.
Hub Lightning, 15 lb. 55c; 25 lb. 70c each.
Tin Cans.
Chamellene Graphite.
1 lb. per gross.....$9 50
3 lb. per gross.....25 00
5 lb. per gross.....37 00

GRIDDLES.

Soapstone.....33⅓%

GRINDSTONES.

Family.
Inches..... 6 8 10
Per doz.....$7.25 9.75 12.00
Loose.
Per ton.....$20 00@$21 00
Mounted.
Ball Bearing..... 1 2 3
Each.....$3.15 3.00 2.85
Common Bearing..... 1 2 3
Each.....$3.00 2.80 2.65

GUN WADS
(See Ammunition.)

HAFTS, AWL.

Brad.
Common.....per doz. $0 19
Peg.
Common.....".....22
Patent, plain top.....".....47
Patent, leather top...".....52
Sewing.
Common.....".....22
Patent.....".....52

HALTERS.

Jute Rope.....per doz. $1 10
Sisal Rope.....".....1 85
Web.....".....2 00
Leather, rope tie.....".....8 50
Leather, leather tie.....".....11 50

HAMMERS, HANDLED.

Blacksmiths' Hand.
Plumbs.....60&5%
Engineers'.
Plumbs.....60&5%
Farriers'.
Plumbs.....40&10%
Machinists'.
Plumbs.....60&5%
Nail.
Plumbs.....40&7½%
Quaker City.....per doz. $3 50
Cast.....".....1 15
Maydole's.....30&5%
Riveting.
Plumbs.....40&12½%
Shoe.
Cast.....per doz. $0 90
Tack.
All Iron.....per doz. $0 35
Pol'd Iron, Hickory hdl.".....50
Mall. Iron, Inlaid.....".....1 55
Magnetic..... 1 2 3
Per doz.....$0.70 .80 1.00
Magazine.....per doz. 4 75

HAMMERS, HEAVY.

Heavy Hammers and Sledges.
Under 5 lbs.....80&5%
5 lbs. and over.....80&10%
Masons'.
Single and Double Face.....80&5%

HANDLES.

Auger.
Common Assorted....per doz. $0 50
Pratt's Adjustable, Nos. 1 & 2, per doz.....4 50
Ives' Adjustable.....per set, 1 35
Axe.....40%
Chisel.
Hickory, Tanged Firmer, Assorted, 33c; Large, 38c per doz.
Hickory, Socket Firmer, Assorted, 27c; Large, 30c per doz.
Applewood, Tanged, Firmer, Assorted, 29c; Large, 38c per doz.
Applewood, Socket, Firmer, Assorted.....per doz $0 24
Coal Pick.....40%
Drifting Pick.....40%
File, assorted, 13c; Large, 16c per doz.
Hammer.
Adze Eye.....per doz. $0 40
Blacksmiths'.....".....40c@70c
Machinists'.....".....45c@70c
Hatchet.....".....40
Hay and Manure Fork.....30%
Hoe and Rake.....30%
Plain.....per doz. $0 75
Varnished.....".....80
Screw Driver.
Assorted.....".....37
Large.....".....48
Shovel and Spade.....33⅓%

HANGERS.

Barn Door.
U. S. Rolled Bearing.....60&10%
Matchless.....50&10%
Storm King.....60%
World's Best.....50%
Wagner's Adjustable.....70&10%
Warehouse Big Twin.....25%
Conductor P.
Griffin.....70&10%
Iwan's Perfection.....50%
Eaw Trough.
Baker's.....per gro. $2 35
Imperial.....20%
Wire.....33⅓%
Parlor Door.
Acme.....per set, $3 75
Ives' Improved.....".....2 60
Lane's Standard.....".....3 50
Lane's New Model.....".....3 10
Le Roy Noiseless.....".....4 00
Richards'.....40-10&5%

HASPS.

Hinge, Wrought.....40%
With Staples—See Staples.

HATCHETS.

Crescent.....50&10%
Cast Claw.....per doz. $1 10@1 35
Cast Shingling.....".....1 25
Germantown.....30%

HAY KNIVES.

See Knives.

HAY RACK BRACKETS.

Wenzleman's No. 1.....per doz. $9 00
Wenzleman's No. 2.....".....9 00

HINGES.

Blind.
Clark's Gravity...per doz. sets, 95c
Parker's.....65%
Shepherd's Noiseless, for Wood Casing.....per doz $1 05
Gate.
Clark's..... 1 2 3
Hgs & Ltch..doz. $2.50 3.25 4.25
Hinges only...".....2.00 2.50
Latches only.".....90 .00
Knuckle.....per doz prs. $6 00
Leed's.....".....sets 6 75
Superior.....".....prs. 9 50
Spring.
Banner.....50%
Chicago.....25&5%
Columbia Dbl. Acting....40&10&5%
Gem.....25%
Ideal Detachable.....per gro. $11
Matchless.....40%
New Idea.....per gro. $8 00
Oxford.....20%
Wrought Iron
New Lists.....
McKinney
Light Strap Hinges.....60%
Heavy Strap Hinges.....60, 10&10%
Light T Hinges.....55%
Heavy T Hinges.....45%
Extra Heavy T Hinges.....60%
Screw Hook and Strap.
6 to 12 in.....per 100 lbs. $4 50
14 to 20 in.....".....".....4 25
22 to 36 in.....".....".....4 00
Screw Hook and Eye.
¼ in.....per 100 lbs. $6 75
⅜ in.....".....".....7 75
½ in.....".....".....9 75

HOES

Garden.....70&10%
Grub.
Extra.....70%
Hazel.....per doz. $5 00
Ladies' and Boys'.....75%
Mortar.....75&10%
Planter's Eye.....62½%
Weed.....75&15%

HOLLOW WARE—See Ware.

HOOKS.

And Eyes.
Brass.....60%
Iron.....70%
Awning.....per gro. 80&10%
Belt.
Brown's.....70&5%
Jones'.....65&5%
Bench.
See Stops, Bench.

Box.
Inch..... 5 7 10 12
Per doz.....$1.90 2.10 2.25 2.65
Humason & Beckley's..per doz. $2 50
(See Goods, Bright Wire.)
Bush.
Common Axe Handle, per doz. $7 00
Chain.
Inch..... ¼&5/16 ⅜ 7/16 ½
Per 100...$7.60-8.10 9.75 11.50 12.60
Clothes Lines.
Japanned .....per doz 22c@24c
Galvanized..... " 40c
Coat and Hat
Cast Iron .... per gro. 72c@$1 50
Gem Wire.....70%
Conductor.
Malleable.....25%
Wrought.....20%
Corn.
Common, rivetted, painted red.....per doz. $2 25
Little Giant..... " 3 25
Gate.
See Goods, Bright Wire.
Grass.
Common. Nos..... 2 3 1
Per doz.....$1.50 1.60 1.70
German.....per doz. 1 75
Gypsy..... " 2 50
Hammock.
With plate.....per doz. 50
With screw..... " 45
Lambrequin, or Drapery, per gro. .21c
Picture.....50%@50&10%
Potato and Manure.....70&12½%
Screw.
Brass.....80&5%
(See Goods, Bright Wire.)
Seat Spring .....per lb. 5½

HOOPS, TUB.

Elastic ... per case of 2 doz.... $1 [illegible]

HOSE, GARDEN.

	Couplings per ft
Velvet, 3 ply-¾" guar. press.....	7½
Eclipse, " " "	8½
Diamond " " "	10
Jeanette " " "	13
Pennsylv'a " " "	16c

COTTON COV. RUBBER HOSE.

High Grade-¾"-guar. press. 400 lbs. 11¼
Special " " " 300 " 9½c
Leader " " " 100 " 7½c

HUSKERS.

Boss.
Nos..... B BB E 200
Per doz.....$2.00 2.00 1.75 .80
Nos..... L PP P K
Per gro.....$5.40 6.00 6.00 10.50
Nos..... 2000 3000 O
Per gro.....$3.50 9.00 24.50
Nos..... 60 59 64 68
Per doz.....$2.15 2.15 .85 1.45
Brinkerhoff's.
Per gro.....$14 40

IRON.

See Metals.—First column.

IRONS.

Curling.
C.....per doz. $0 40
B..... " 50
A..... " 58
Princess..... " 70
Thelma..... " 1 25
Pinking..... " 70
Plane.
Wood Bench.....20&5%
Sad.
Charcoal.....per doz.$11 00
Common, polished, per 100 lb. 3 75
No. 70 Asbestos.....$1 20 net
No. 100 " " 1 30 net
Common, nickel plated, 5 25
Chinese Polishing.....per doz. 7 40
Laundry, No. 1..... " 5 75
Laundry, No. 2..... " 6 25
Mrs. Pott's
No. 50 J, Enterprise, per set 92
No. 55 J, " " 90
No. 50 T, " " 1 00
No. 55 T, " " 90
Tailors' Sad.....per lb. 5½
Tailors' Geese..... " 5½
Tuyere.
Single Duck Nest.....per doz $5 25
Double Duck Nest .. " 6 25
Sutton.....each.... 2 60

JACKS.

Locomotive.....70%
Wagon.
Miller 50%
Oliver,
Nos..... 0 00
Each.....$0.60 $0.80
Standard.
Nos..... 1 2
Each.....$0.00 1.00
Wilcox.
Nos..... 1 2 3
Each..... $0.85 1.20 2.90

KETTLES.

Brass.....15%
Cauldron.....40&5%
Copper.....per lb., 27c
Maslin.....65%
Sugar.....50%

KNIVES.

Beet Topping.
Clyde, 9-in. Scimiter Blade, doz.$3 85
California..... 3 40
Cooper's Hoop.....15%
Corn.
Clipper.....per doz. $1 75
Disston's..... " 2 75
Earle's..... " 3 00
Woodford..... " 2 25
Drawing.
Standard.....70%
Adjustable.....15%
Barton's Carpenters' 10%
Folding Handle.....25&5%
Hay.
American, Sickle Edge...doz. $10 50
Canton, Sickle Edge..... " 8 25
Heath's..... " 8 00
Iwan's, Sickle Edge..... " 9 50
Iwan's, Impv'd Serrated.. " 10 00
Lightn'g, Holt's Genuine. " 6 50
Lightning Pattern..... " 6 00
Wadsworth's Sp'r Poin'.. " 8 50
Hedge.
Challenge.....per doz. $6 00
Disston's..... " 3 75
Fencing.
Common, Single..... " 40
Common, Double..... " 50
Streeter, 4-Blade..... " 1 30
Streeter, 6-Blade..... " 2 00
Putty.
Common.....per doz. $0 60@1 00
Lander'r..... " 1 40@1 75
Scraping.
Beech Handle..... 75@1 00
Lander's..... 5 25@6 00

KNOBS.

Door.
Mineral.....per doz. $0 80
Porcelain..... " 90
Jet..... " 90

LADDERS.

Common Long.
Per ft.....9c@14c
Extension.
Per ft.....14c
Step.
Common, per ft.....7½c
Common, with Shelf, add 10c.
Keystone.....15c
Triumph, per ft.....20c

LANTERNS.

Bull's Eye Police.
3 -in. Flash Light....per doz. $6 00
2½-in. Regular..... " 4 90
3 -in. Regular..... " 5 50
Tubular.
Dietz & Hanes' . . ..net prices.

LEADERS, CATTLE.

Nos..... 1 2 3
Per doz..... $0 55 .70 2.75

LEATHER, LACE.

Cut.....33⅓%
Sides.
Ex. Quality ..... per sq. ft., 27

LEATHERS, PUMP.

Valve and Plunger.....10%

LIFTERS.

Stove Cover.
Coppered.....per gro. 1 75@3 65
Ideal..... " 5 50
Alaska, Coppered " 4 00
Alaska, Nickeled. " 5 00
Transom.
Payson's.....80%

LINES.

Chalk.
Twisted in 20-ft. hanks.
Nos.... 4 6 7 8 9
Gross...$1.50 2 00 2 25 2 50 3 00
Twisted in 50-ft. balls.
Nos..... 1 2 3 4
Per doz.....25c 30c 35c 41c
Braided in 20-ft. hanks.
Nos..... 0 1 2 3
Per doz.....22c 25c 31c 36c
Mansons', in 100-ft. hanks...doz. 80c
Clothes.
60-ft. Jute.....per doz. $0 95
72-ft. Jute..... " 1 15
60-ft. Sisal..... " 1 40
72 ft. Sisal..... " 2 15
50-ft. Cotton..... " 1 15
50-ft. Braided Cotton. " 25

LINING, STOVE.

In Bricks .....per crate. 42c

MACHINES.

Boring.		Without Augers	With Augers
Angular.....per doz.		3 00	4 40
Upright..... "		2 60	4 00
Leather Riveting.			
Chicago, Pomeroy....per doz.		$0 00	
Excelsior.....	"	2 00	
Handy.....	"	2 00	
Little Giant.....	"	3 00	
Pony, Pomeroy.....	"	7 20	
Washing.			
Winner.....per doz.		54 00	
Keystone.....	"	54 00	
U. S. Steel.....	"	60 00	
Advance, f.o.b.Chicago	"	24 50	

MAIL BOXES.

See Boxes.

MALLETS.

Carpenters'.
Fibre Head, Small....per doz. $5 00
" " Medium. " 5 75
" " Large... " 7 00
Round Hickory..... " 2 25
" Lignumvitæ... " 4 00
Square Hickory..... " 2 25
" Lignumvitæ... " 4 50
Tinners'.
Applewood..... " 1 70
Hickory..... " 1.00@1 50
Hickory Sheet Iron... " 1 50

MATS.

Door
National Rigid.....50, 10&5%
Acme Steel Flexible.....33⅓%
Stove.
No. 2.....per gro. $3 25
No. 1..... " 3 50
No. 1 Asbestos Toasters, or wire-covered Stove Mats, with handle.....per doz. 1 10
No. 2 Asbestos Toasters, with ring.....per doz. 60

MATTOCKS.

Plumbs.....65&10%
Extra.....60%

MAULS.

Iron, lbs.....	10	13	16	18
Per doz....	$4.00	4.50	5.25	5.60
Wood face, lbs.....	10	12	14	
Per doz.....	$5.00	5.50	6.00	

Wood Choppers'.
Lake Super'r & Oregon Pat. 75&10%

MEASURES.

	½ pk.	1 pk.	bu.
Galvanized, per doz.	$2.25	3.00	3.85
Japanned.. "	1.75	2.45	3.15

MICA.

First Quality.....40&5%
Second Quality.....50&5%

MILLS, COFFEE.

Enterprise.....25%
Parker.....50&5%
Arcade.....40-12½&2½%

MITRE BOXES.

See Boxes.

MOPS.

Erie.....per doz. $3 15
Handled Cotton.
Pounds..... ¾ 1 1½ 2
Per dozen....$2.00 2.35 2.65 3.25

MOWERS, LAWN.

Gladiator—B. B.
Inches..... 16 18 20
Each..... 6.50 7.25 8.00
King Universal—B. B.
Each..... 5.25 5.75 6.00
Inches..... 14 16 18
Big Giant..... 3.50 3.90 4.25
Little Giant..... 2.50 2.65 2.75

NAILS.

Cut Steel .....rates, $2 50
Cut Iron..... 2 60
Wire.
Small Lots..... $2 25
Carload Lots..... 2 15
Cement Coated..... 2 30
Horse Shoe.
Ausable.....55&5%
Capewell.....15%
Perfect.....55&5%
Putnam.....20&5%
Star.....35&5%
Clover Leaf ..... per lb., net, 10½c
Picture.
Brass Heads.....25%
Brads.....85%
Furniture.....15%

NAIL PULLERS.

See Pullers.

NAIL SETS.

See Sets.

NETTING, POULTRY.

Galvanized beforeweaving .80,10&2½%
Galvanized after weaving.....80&7½%
Cut Pieces.....65&5%

NIPPERS.

End Cutting.
Stubb's Pattern. Inches 5½ 6
Per dozen..... $4.00 4.25
End and Diagonal Cutting.
Swedish Side.....75%
Utica Drop Forge & Tool Co....60%
Hoof.
Heller's.....40&10%
V. & B.....55&5%

NOZZLES.

Hose.
Genuine Gem.....per doz. $3 90
Magic..... " 3 60
Mystic..... " 3 00

NUTS, HOT PRESSED.

Square Blank.
In ¼ 5/16 ⅜ 7/16 ½ 9/16 ⅝
lb 9½c 8c 6½c 6½c 5½c 5c 4½c
Square Tapped.
In. ¼ 5/16 ⅜ 7/16 ½ 9/16 ⅝
lb. 12½c 10½c 8c 7½c 6½c 6½c 6c
For 5-lb. boxes add ½c per lb. to above prices.

OILERS.

Chase Pattern.
Brass and Copper.....60%
Zinc.....60%
Engineers'.
Cannon.....55%
Tin .....per doz. $2 00@$2 25
Machine.
Common.....per doz. $0 58
Copper Plated Steel... " 1 00
Malleable Iron.....60, 10&5%
Japanned.....65@75c

OPENERS.

Box.
Inches..... 10 12 14
Flat.....per doz. $2.85 3.60 4.15
Round.... " 2.10 2.25 2.75
Can.
Delmonico .....per doz $1 20
Never Slip..... " 65
Crate.
V. & B..... " 5 75

OUTFITS, COBBLING.

Combination.....per doz. 11 00
Economy..... " 4 65
Family..... " 9 75

PADLOCKS.

Standard Wrought.....75&5%
Champion.....50%
Eureka.....40, 10&5%
Yale.....60&5%

PAILS.

Cream.
14-qt , without gauge, per doz. $2 50
20-qt., " " " 3 00
20-qt., with gauge.... " 3 50
Sap.
10-qt., Galvanized, per 100....$13 00
12-qt., " " 14 50
14-qt., " " 16 25
16-qt., " " 17 75
10-qt.,IC Tin.... " 10 25
12-qt., " .... " 11 75
14-qt., " .... " 13 00
10-qt.,IX Tin.... " 12 75
12-qt., " .... " 16 00
14-qt., " .... " 17 00
Stock.
Galv'd, qts. 14 16 18 20
Per doz..... $3.75 4.00 4.75 5.25
Water.
Galvanized... qts. 10 12 14
Per doz..... $1.95 2.20 2.45
Wood.
Cable, 2-Hoop.....per doz. $1 70
Cable, 3-Hoop..... " 1 90
Cedar, 3-Hoop..... " 2 85
Standard, 2-Hoop.... " 1 60
Standard, 3-Hoop.... " 1 80

PANS

Dripping.....60&5%
Fry
Common .....75&10%
Acme 70%
Roasting.
Paxton,
Nos..... 1 2 3 4
Per doz.... $4.75 5.75 6.50 7.50
Neverburn .. 4.00 4.50 5.50 6.00
Savory, No. 200.....per doz. $8.00

PAPER.

Building.
Plain.....per 100 lbs. $1 25
Tarred..... " 1 35
Tarred Felt..... " 1 65
No. 20, Red Rosin....per roll, 40
No. 30, Red Rosin.... " 55
Sand and Emery.
Star ..... low list, 50%
B. & A.....50%
Wrapping.
Drab Fiber.....per lb. $0 00
Rag..... " 0 00

PARERS.

Apple.
Bay State.....per doz. $13 00
Turntable..... " 0 00
White Mountain..... " 5 00
Reading..... " 7 00
Potato.
Goodsell's Saratoga, 10½ in., doz. 6 50
Goodsell's Saratoga, 5 in., doz. 5 50

PICKS.

Adze Eye Ore.....70%
Drifting and Poll Picks.....70%
Plumbs, Railroad.....70%
Surface.....70%

PINCERS.

Carpenters', cast steel.

Inches	6	8	10	12
Per doz	$2.00	2.60	2.95	3.75

Blacksmiths'.....45%
Heller's.....40%

PINS.

Clothes.
Common.....per box of 5 gro $0 52
Hoyt's..... " " 31
U. S..... " " 70
Picket.
Fluted, 15-in.....per doz. $0 70
Fluted, 21-in..... " 1 60
Spiral..... " 1 90

PIPE.

Conductor.

	Gal. Steel	Charcoal
L. C. L. to Dealers:—		
Eastern	70&10%	50&10&2½%
Pittsburgh	75&10&5%	60%
Central	75&10%	60%
Northwestern	75&7½%	60%
Western	70&12½%	50&12½%
Tennessee	70&10%	50&12½%
Southern	70%	50&12½%
Southwestern	70%	50&5%

Terms 60 days; 2% Cash 10 days.
Factory shipments generally delivered.

Lead.
Full coils .....per lb. 7½c
Cut coils..... " 7¾c
Stove

Acme—Inches	5	6	7
Smooth, per jt	8½c	9½c	10½c
Planished, "	32 c	33 c	43 c
Peerless—Smooth,	7½c	8 c	9½c
Polished	14½c	15½c	18 c
Planished	28 c	31 c	35½c
Made-up—Inches	5	6	7
Smooth	7½c	8 c	9½c

7 to 6 in. Smooth Tapers, pr jt...13c
6 in. Smooth T's..... " 27c
7 to 6 in. Planished Tapers.....45c

Yale Patent Lock Pipe—Stove.

	5"	6"	7"	7" to 6"
	Cents			
Battle Axe Blue	7	7½	9½	10½
Can't Slip "	7½	8½	10	11
Peerless "	7½	8½	10	11
Duplex "	10	11	13	14
Yale, Rus. Fin	15	16	17	18
Duplex Planished	29	31	37	38
Galvano, Gal	15	16	17	18

It wanted made up, add per joint or grooved, 1c; riveted, 1½c. Grating made-up pipe extra.

Wrought Iron Gas Pipe.
⅛@¼-in., black.....discount, 60%
⅛@¼-in., black..... " 60,10&5%
⅜-in. to 6-in, black... " 70%
7-in. to 12-in., black... " 62½%
⅛@¼-in., galvanized.... " 42%
⅛@¼-in., galvanized.... " 50%
⅜-in. to 6-in., galvan'd " 57½%
7-in. to 12-in., galvan'd " 45%

PLANES.

Sargent Iron Bench.....60%
Stanley Iron Bench .....25&5%

PLATES, TIN.

See Metals in Column 1.

PLIERS.

Giant, Button's—80% off list.
Cutting
Bernard's.....30%
Lodi.....50%
Upper End and Diagonal Cutting
Swedish Side.....70%
Utica Drop Forge & Tool Co....60%
Fencing.
Black Bull.....per doz. $8 25
Farmers' Choice.....per doz. $8 00
Russell's..... " 8 25
Flat and Round Nose.
Bernard's.....30%
German.....65%
Lodi.....50%
Paragon.....50%

Gas.—Inches	7	8	10	12
Per doz	$3.00	3.50	4.50	5.50

Tinners'.
Hollow.....40%
Solid.....each, 5½c

PLUMBS AND LEVELS

Common .....60&10&10%
Cook's.....40%
Davis' Iron.....25%
Davis' Inclinometer.....15%

POINTS

Drive Well Points.....75&5%

POKERS, STOVE.

Wr't Steel, str't or bent, per doz. $0 55
Wr't Steel, wood hand'ls " 80
Nickel Plated, coil hand'ls " 65

POKES, ANIMAL.

Cracker Jack, wr't steel, per doz. $4 50

POLISH.

Metal.
White Silk, half pints, per doz, $2 00
White Silk, 6-oz. cans, per doz. 1 00
Shoe.
M. C. D.....per doz.....35c@50c
F. C. O..... " 40c
T M..... " .55c@$1 75
Imperial.....per gro 5 00
Stove.
Black Eagle, 1-lb. cans, pr. gr. $15 00
Black Silk—
5-lb. pail..... $0 70
Paste, 5-oz. cans....per doz. 75
Paste, ½-lb. cans.... " 1 05
Liquid, ½-pt. cans... " 1 05
Liquid, 6-oz. cans... " 75
Black Jack, ½-lb. cans. " 9 25
Dixon's Carb. of Iron. " 5 75
Nickel Plate..... " 4 50

POPPERS, CORN.

Round or Square, 1-qt. per doz. $1 05
Square, 1½-qt..... " 1 15
Square, 2-qt..... " 1 35
4-qt..... " 3 75

POTS, FIRE.

Clayton & Lambert's, each, $4 75@6 25
Gate City.....each, 6 25
Gem.....each, $6 75@8 50

POWDER.

See Ammunition.

PRESSES, FRUIT AND JELLY.

Enterprise Manufacturing Co.....25%

PRIMERS

See Ammunition.

PRUNERS.

Disston's Pole.....per doz. $6 50
Henry's Improved..... " 75&10%
Water's Improved..... " 80%

PULLERS.

Cork.
Daisy..... each, $3 10
Phœnix..... " 1 40
Quick and Easy..... " 2 70
Nail.
Giant.....per doz. 10 50
Giant Pattern..... " 6 00
Jumbo..... " 9 00
Tack—Giant ..... " 40

PULLEYS.

Awning—Jap'd.....60%
Clothes Line.....50&10%
Hay Fork.
Iron Wheel, 5-in.....per doz. $1 75
Wood Wheel, 6-in.... " 1 75
Wood Wheel, 6-in., pass knot, ...per doz. 2 15
Hot House—Jap'd.....50&10%
Screw—Jap'd.....60%
Side—Jap'd.....50&10%
Sash.
Common.....per doz. $0 16
Common-Sense, 2-in.. " 20
Empire Pattern, 2-in.. " 20
Ideal..... " 20
Steel..... " 25

PUMPS.

Pitcher Spout.

Nos	1	2	3	4
Each	$1.00	1.15	1.30	1.70

Spray.
Blizzard.....per doz. $14 50
Cyclone, tin..... " 3 40
Cyclone, copper..... " 6 75
Daisy..... " 9 00
Little Giant.....each,... 2 25

PUNCHES.

Conductors'.
No 22.....per doz $2 2
Machine.....per lb 19
Saddlers'.
Common .....per doz 60c@70c
Good..... " 72c@84c

PUTTY.

In Bladders.
Strictly pure.....per 100 lbs. 2 35

RAIL.

Barn Door.
Matchless, 1-in..... 3 c
Matchless, 1½-in..... 3½c
Storm King..... 4 c
Sliding Door.
Painted steel.....per ft. 4½c
Bronzed wrought iron...per ft. 8½c

RAKES.

Coal or Wood.....per doz. $5 20
Garden.
Steel.....70%
Steel, bow.....70%
Malleable iron, heavy.....60&10%
Hay.
Wood.....$1 50@$2 00
Lawn—Wood.
XXX.....per doz. $3 00
Automatic..... " 5 25
Lawn Queen..... " 2 75
Jumbo, 36 teeth..... " 5 25

RASPS—See Files.

RAZORS.

Bo-ras-ic.....50%
Red Devil.....50%
Tree Brand.....50%

REGISTERS.

(All Sizes)

Japanned, Bronzed and Plated...70%
White Porcelain Enameled...50&10%
Solid Brass and Bronze Metal....40%
Single Valve (Baseboard and Sidewall).....70&10%

REGISTER FACES

Japanned, Bronzed and Plated
4x6 to 14x14.....70%
14x14 to 38x42.....75&10%
Heavy Round Gratings.....75&10%
White Porcelain Enameled...50&10%
Solid Brass or Bronze Metal.....40%

RINGS.

Bull.

	2½ in.	3in.
Copper		
Per doz	$1 10	$1 40
Rea's Improved Self-Piercing copper, pr doz	2 00	....
Steel, per doz	85	95
Nickel plated	1 35	....

and Ringers—Hog.
Blair's Rings.....per doz. $0 58
Blair's Ringers..... " 75
Brown's Rings..... 50
Brown's Ringers..... " 80
Champion Ringers.... " 60
Hill's Ringers..... " 70
Hill's Ring, boxes.... " 47
Major Rings..... " 60
Perfect Ringers..... " 95
Wolverine Rings..... " 1 40
Wolverine Ringers.... " 80
Fruit Jar.
White.....per lb.....30c
Key.
Split, round.....per doz. $0 17
Split, square..... " 32
Ball, round..... " 32

RIVETS.

and Burrs.
Copper Belt.....40%
Coppered Iron.....60&10&5%
Tinners'.....60&10%
Hame.....per lb. $0 10
Slotted Clinch per doz 40c@45c
Tubular
Nos 1 and 2 assorted sizes, doz, 45c

RIVET SETS

See Sets.

ROPE.

Cotton.
¼, 5-16 in. Com on reels. .per lb. 11½c
¼, 5-16 in Com. in coils. . " 12 c
¼, 5-16 Imperial in coils.. " 21 c
Sisal.
1st Quality .....12 c
Hardware Grade, rates, per lb...10 c
Pure Manila.
1st quality.....per lb. 15½c
Hardware Grade, rates... " 14½c

RULES.

Boxwood.....50&10%
Ivory.....

SASH WEIGHTS.

See Weights.

SAWS.

Back.
Disston's.....25%
Jackson's.....25%
Butchers'.
Disston's.....30%
Circular.
Disston's.....50%
Hiles'.....50&10%
Compass.
Common.....per doz $1 35@1 60
Disston's .....%25
Cross-Cut
Disston's.....45%
Dehorning.
Disston's.....per doz. $5 75
Hack.
Disston's.....25%
Keystone.....30%
Hand and Rip.
Brown's.....30%
Disston's No. 7.....30%
Disston's Nos. 8, D8, 12, 76, 112, D100, and 120 (new list).....25%
Keystone.....30%
Enterprise, hand.....per doz. $5 00
Our Saw, hand..... " 4 00
Our Saw, rip..... " 4 50
Keyhole—Disston's.....25%
Kitchen.
Sterling 25%
One Man.....50%
Panel
Brown's 30%
Disston's No. 7.....30%
Disston's No. D100.....25%
Pruning.
Brown's 25%
Disston's 25%
Wood
Common.....per doz. $4 50
Clover Leaf..... " 6 00

SAW BUCKS—See Bucks.

SAW SETS—See Sets.

SAW TOOLS—See Tools.

SAW FRAMES.

Common, plain.....per doz. $1 25
Common, painted..... " 1 70

SCALES.

Counter.
Pelouze.....40&10%
Platform.
Osgood.....50%

SCOOPS.

Grain.
½-bu. "Hercules".....per doz. 13 70
1-bu. "Hercules"..... " 15 00

SCRAPERS.

Box.
Triangular.....per doz. $4 00
Cabinet.
Cast Steel . . . . per doz , 60c@75c
Road.

Cubic ft.	7	5	3
Without run's, ea.	$4.00	3.75	3.50
With runners, ea..	4.25	4.00	3.75

SCREWS.

Bench.

Iron, in	1	1½	1¾
	$3.50	4.00	4.75

Wood, white maple...per doz. $3 50
Hand—Wood.....10%
Hand Rail.....80&10%
Jack.....70&10&5%
Lag or Coach—all sizes, gimlet pointed.....75&5%
Saw—Centennial.

Nos	1	2	3	4	5	6
Per doz.	18c	20c	26c	30c	23c	25c

Wood.
F. H. Bright.....87½&5%
R H Blued.....85%
F. H. Jap'd.....82½%
F. H. Brass.....85%
R. H. Brass.....80%
R. H. Nickel Plated.....75-10%

SCYTHES.

Be Ve Be, grass.....per doz. $8 00
Clipper, grass..... " 8 25
Clover Leaf Dutchman. " 7 50
Honest Dutchman..... " 7 50
Be Ve Be..... " 7 50

SHAVING SETS.

Smith & Hemenway.....60%

SETS.

Nail.
Round, common.....per doz. $0 33
Square, common..... " 42
Octagon, common.... " 33
No. 5, square..... " 75
Cup point, knurled... " 75
Rivet.
Farmers'.....per doz. $1 20
Tinners'.....50&10%
Saw.
Aiken's Pattern.....per doz $3 50
Common Lever..... " 1 20
Disston's Monarch.... " 6 50
Disston's X Cut ..... " 12 00
German..... " 1 05
Leach's..... " 80
Nash's Hand..... " 3 15
Nash's X Cut..... " 4 20
Stillman's Lever..... " 1 30
Stillman's X Cut..... " 2 50

SHARPENERS, SKATE.

Diamond.....per doz $1 60
Smith & Hemenway 20%

SHAVES, SPOKE

Iron.....per doz $1 10@1 85
Wood ..... " 2 75@4 75
Bailey's .....50&5%
Goodell's 15%

SHEARS

Pruning
Buckeye, No. 1.....per doz $5 75
Buckeye, No. 2..... " 7 40
California Pat., 9-in.. " 3 20
Cailfornia Pat., 10-in.. " 4 00
Draw Cut, No. 3..... " 13 75
Draw Cut, No. 4..... " 16 50
Henry's Pat. 0 01 14 012
Per doz.....$1.40 2.10 2.90 2.80
Star.....per doz $4 00
Sheep—No BBA.
Inches..... 6 6½ 7
Reg. Grip.....$11.25 11.50 12.00
Nar. Grip.,doz.... 11.00 11.25 12.25
Tinners'—See Snips.

SHEAVES, SLIDING DOOR.

Common.
Inches..... 3 4 5
Per set..... $0.34 .42 .70
Hatfield's.
Per set..... $0.75 1.00 1.00

SHELLS—See Ammunition.

SHELLERS, CORN.

Union.....per doz. $6 75

SHIELDS.

Expansion Bolt Shields.....50&10%

SHOES.

Conductor.....60&10%

SHOT—See Ammunition.

SHOVELS AND SPADES

Coal.
No 2 Woodford.....per doz. $5 50
No. 182..... " 6 00
Ames' new list .....Discount, 12½%
Per doz.
Neverbreak, hollow bck, blk. $15 75
National.... " " " 14 75
Buckeye.... " " " 10 00
Mohawk.... " " " 9 00
Drain.
Iwan's Perfection.....50%
Railroad, etc.
Black Diamond.....per doz. $1 50
Crescent..... " 5 75
Keystone..... " 8 75
Star..... " 4 75
Vaterland..... " 9 50
Hollow Back..... " 4 75
Ames, new list .....Discount, 12½%
Snow.
Per doz.....$1.65@$9.00
Alaska Steel.
D Handle.....per dos. $3 50
Long Handle..... " 3 00

SINKS.

Cast Iron.
Painted.....50&10%
Enameled, White.....50&10%
Wrought Steel.
Painted, new list.....40-10&5%

SLEDGES—See Hammers.

SNAPS, HARNESS.

Champion.....33⅓%
German Pattern.....30&5%
Judd's Pattern.....50%

SNATHS.

Double Ring, Bush.....per doz. $6 00
Patent Loop, Bush..... " 5 75
Patent Loop, Grass..... " 5 50

SNIPS, TINNERS'.

Clover Leaf.....40&10%
National.....40&10%

SOLDER—See Metals.

SPRINGS, DOOR.

Perfect.
Nos..... 1 2 3 4
Per dos.....30c 35c 40c 54c
Reliance.
Per dos ... light, $1.25; heavy, $2 50
Star.
Per dos .... light, 90c; heavy, $1 35
Torrey's.....per doz. $1 35
Warner's No..... 11 13
Per doz..... 75c $1 35

SQUARES.

Steel and Iron.....70&10%
(Add for bluing, $2.50 per dcs., net.)
Mitre.
Try.
Try and Bevel.
Try and Miter.
Fox's.....per doz. $5 75
Winterbottom's.....70%

SQUEEZERS, LEMON.

Common Wood.....per doz. $0 70
Porcelain Lined, Wood.. " 1 25
Boss, malleable iron.... " 1 20
Iron Frame, porc'n bowl " 1 90
Iron Frame, glass bowl . " 2 35
Little Giant, tin'd iron . " 4 00
Drum, japanned..... " 3 60
Drum, nickel plated ... " 4 50

STAPLES

Blind.
Barbed.....per lb ..9½@9¾c
Butter Tub..... " .....8 @8½c
Fence—less than carload.
Polished.....per 100 lbs. $2 30
Galvanized..... " 2 60
Netting.
Galvanized.....per 100 lbs. 4 00
Wrought.
Wrought Staples, Hasps and Staples, Hasps, Hooks and Staples, and Hooks and Staples.....80-10&10%
Extra heavy.....75&10%

STEELYARD.

Discount 25%.

STONES.

Axe.
Hindostan.....per lb 5½@7 c
More Grit..... " 9½c
Washita ..... " 17 c
Emery.....60%@60&5%
Oil—Mounted.
Arkansas Hard.....per doz.$23 00
Arkansas Soft..... " 15 50
Hindostan .....per lb 6½@6¾
Oil—Unmounted.
Arkansas Hard.....per lb $2 05
Arkansas Soft ..... " 1 10
Lily White..... " 45
Queer Creek..... " 15
Ouachita..... " 38
Washita..... " 26
Sythe.
Black Diamond.....per gro. $8 00
Crescent..... " 4 25
Gem Corundum..... " 7 50
Green Mountain..... " 4 50
La Moille ..... " 7 00
Quinnebog..... " 5 00
Red End ..... " 3 75

STOPS, BENCH.

Hotchkiss'.....per doz. $3 50
Stearns'..... " 4 75

STOPPERS, FLUE.

Common.....per doz. $0 40
Crown..... " 45
Gem, flat, painted..... " 85
Gem, cor'd, decorated... " 70
Kirch's..... " 90
Perfect..... " 70@85
Skinner's Common Sense " 80

STOVE PIPE—See Pipe.

STOVE BOARDS—See Boards

STOVE POLISH—See Polish.

STRAPS.

Scoop.....per doz prs., $1 85
Skate..... " " 60@70c

STRETCHERS.

Carpet.
Bullard's.....per doz. $3 90
Excelsior..... " 5 25
Malleable Iron..... " 70
Perfection..... " 6 30
King..... " 4 50
Wire.
N. S. Elwood's.....per doz. $5 00
O. S. Elwood's..... " 6 00
Little Giant..... " 5 75
Safety..... " 10 00
Star Lever..... " 6 25
Canton Tackle Block. " 9 50
Warner's ..... " 6 25

SWIVELS.

Malleable Iron.....per lb. $0 70
Wrought Steel.....per gro. 4 50

TACKS.

American Cut.....90&15%
American Wire.....85&20%
Bill Posters Cut.....90&20%
Glued Carpet.....90&10%
Tinned Carpet.....90&10%
Gimp.....90&10%
Upholsters' Cut.....90&20%
Upholsters' Wire.....90&10%
Double Pointed.....90%
Copper.....per lb. 32c
Canvas Nails.....75&5%
Clout Nails.....75&10%
Hungarian Nails.....80%

TAPES, MEASURING.

Asses' Skin.....40&10%
Bend Leather.....20%
Patent Leather.....20%
Lufkin's Steel.....25%
Lufkin's Metallic.....30%

TEE BEVELS—See Bevels.

THERMOMETERS.

Tin Case.....per doz. 80c@$1 25
Wood Back..... " $2.00@12 00
Glass..... " 12 00

TIES.

Bale.
Single Loop.....80&5%
All other kinds.....70%
Cow—See "Chains."

TOOLS, SAW.

Disston's Universal.....40%
Miniature.
Smith & Hemenway.....25%

TRAPS.

Fly.
Ballon.....per doz. $1 25
Harper's..... " 1 35
Game.
Newhouse.....40&10%
New Victor.....70&10%
Mole.
Reddick's.....per doz. $6 00
Mouse and Rat.
Wood Choker ..per doz. holes $0 13
Tin Choker .... " " 75
Delusion.....per doz. 1 15
Marty Rat..... " 6 25
Marty Rat Imitation. " 3 50
Marty Mouse..... " 3 00
Marty Mouse Imitation " 2 00
Hold-em, wire rat.... " 3 75

TROWELS.

Brick.
Clover Leaf.....30%
Brade's.....15&5%
Disston's.....30%
Rose's.....20%
Plasterers'.
Clover Leaf.....40%
Disston's.....25%
W. & McP.....25%

TRUCKS.

Bag.....each, $2 75
Handy..... " 1 85
Warehouse.....50&10%
No..... 1 2 3
Half Ironed..... $3.00 3.85 5.50
Full Ironed..... 3.45 4.50 6.45

TUBS, WASH

Standard, Wood. Ex.
Nos..... 3 2 1 large
Per dos.....$5.00 6.00 7.00 9.50
Dowell.
Per dos..... 5.35 6.35 7.00 9.50
Cedar.
Per dos..... 6.10 7.10 7.90 10.80
Indurated.
Per doz..... 8.55 9.45 10.80 13.50
Galvanized.
No..... 1 2 3
Per doz.....$6.00 6.75 7.75

TWINE.

Per lb.
3-ply Cotton Wrapping 25c
4 " " " 25c
" " Extra Wrapping.....27c
4 " " " Hvy. Wrapping 25c
4 " " Wrapping on tubes....27c
3 " " " " cones.....25c
4 " " " " " 25c
India Hemp, ½-lb. balls 19c
" " ½-lb. " 18c
" " ¼-lb. " .....doz. 75c
2-ply Jute, ½-lb. " 14c
3-ply Jute, ½-lb. " 13c
Jute Wrapping, ½-lb. balls.....14c
Jute Wool, 1-lb. balls.....9½c
Seins.
Nos..... 9 12 15
Soft.....per lb 26½ 26 25
Med..... " 26½ 26 25
Hard..... " 27 26½ 26
Staging, ½-lb. ball, size 21.....26½c
" " " " 24.....26c
" " " " 27.....26c
Bagging " " 23c
3-p y "B" in hanks 18c
4- " "B" " 18c
3 " "A" " 27c
3 " Silver Finish, in hanks...37c
Fodder or Lath.
130 strand.....6¾c
200 strand.....—c

VISES.

Phœnix.....30%
Phœnix Oval Slide.
Inches..... 2½ 3 3½ 4½
Each..... $1.25 1.50 1.85 2.75
Parker's Parallel..... 20%
Parker's Victor..... 20%
Parker's Swivel Base..... 20%
Parker's Re-inforced 20%
Parker's X Series..... 20%
Parker's Combination 20%
No. 110, Bicycle..... " 31 50
No. 500, Royal..... " 32 50
No. 350, Universal..... " 28 00
No. 300, Novelty..... " 28 00
No. 310, Keystone..... " 28 00
No. 100, Rival..... " 28 50
Solid Box.....40&5%
Adams' Mechanics'.....each 2 50
Williamson's Universal.....60%

WARE.

Stove Hollow Ware.
Plain or Unground.....50%
Ground Ware.....45%
Enameled Ware.....33⅓%
Country Hollow Ware, per 100 lbs. $3 00
White Enameled Ware.
Maslin Kettles.....60&10%
Covered Ware.
Tin'd and Turn'd.....35&10%
Enameled.....45&10%
Glue Pots.
Tinned.... .....25%
Enameled.....30%
Enameled.
Cherry Blossom and Chrysolite..50%

WASH BOARDS—See Boards.

WASHERS.

Standard O G. cast iron . . .per lb. 2½c
Wrought iron in bulk, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾
9c 6½c 5c 4½c 4½c 4½c 3½c
Wrought steel in 5-lb. boxes, per lb.:
In. ½ ⅝ ¾ ⅞ 1 1¼ 1½ 1¾
10 7c 6c 5½c 5c 5c 4½c

WASHING MACHINES—

See Machines.

WEDGES.

Ax.....per doz. $0 30
Galling.....per lb. 10¾
Saw..... " 8¾

WEANERS.

Calf.
Fuller's, per doz.....$2 00 to $2 50
Tyler's Safety, per doz 1 85 to 2 40
Carroll's, per doz..... 3 00 to 3 75
Standard, per doz..... 3 00
Hoosier, per doz..... 3 50 to 4 00

WEIGHTS.

Hitching.....per lb. 2½c
Sash—f.o.b Chicago....pr ton, 26 50

WHEEL BARROWS.

Common Railroad.....per doz. $17 00
Heavy Railroad..... " 24 00
Panama Steel Tray.... " 30 00
Klondike Steel Tray.. " 28 00

WHEELS.

Corundum.....70&10&5%
Emery.....75&5%
Well. Inches.. 8 10 12 14
Per dos..... $2.40 3.25 4.00 6.00

WIRE.

Barbed. Painted. Galv'd
Carloads .. per 100 lbs. $2.33 $2.63
Less than car " 2.43 2.73
Brass.
In coils.....20%
In 1-lb. spools, new list.....50%
Broom—Tinned . . . 60&10&10&10%
Cable—Same price as Barbed Wire.
Copper.
In coils.....20&10%33⅓%
1-lb. spools, new list.....50&10%
Fence—Smooth.
Nos. 6 to 9, An'eal'd, pr 100 lbs. $2 30
Nos. 6 to 9, Galv'd.. " 2 60
Hair—New List.....50%
Market.
Bright, full bdles.....70&5%
Bright, broken bdles.....70%
Coppered, full bdles.....70%
Coppered, broken bdles.....65&10%
Tinned, full bdles.....75&5%
Tinned, broken bdles.....65&10%
Picture—In coils . . . . 80% @80&10%
In 5-lb. spools.....per lb.....26c
Plain—Small lots..... $2 10
Car lots..... 2 05
Small spools 5c per 100 higher.

WRENCHES.

Acme Standard.....60%
Alligator No. 1.....85cnet
Always Ready.....50%
Agricultural.....75&5%
Ellis Adjustable.....25%
Malleable "S".....per lb. 08c
Malleable..... " 08c
Stillson Pipe.....70%
Bemis & Call's:
Adjustable S, 40&5%; Adjustable S Pipe, 40&5%; Briggs Pattern, 40%; Combination Bright, 50%
Steel Handle Nut.....50&5%
Combination Black.....50&5%
Merrick Pattern.....50&5%
Double End Adj. S.....40&5%

WRINGERS.

No. 22, Guarantee....per doz. $32 50
No. 110, Guarantee.... " 32 50
No. 110, Brighton..... " 23 50

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Columbus Bolt Wks., Columbus, O

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Star Expansion Bolt Co., New York, N.Y

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Bertsch & Co., Cambridge City, Ind
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Lawson Mfg. Co., Chicago, Ill
North Bros. Mfg. Co., Philadelphia, Pa
Simmons Hdw. Co., St. Louis, Mo
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Columbus Bolt Works, Columbus, O

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Burton W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
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Foster, Wm. & Sons Co., Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Keighley Met. Ceiling Co., Pittsburg, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Wheeling Corrugating Co., Wheeling, W. Va

Cement—Roofing

Auld & Conger Co., Cleveland, O
Conners, Wm. Paint Mfg. Co., Troy, N. Y

Cement—Plumbers

Obermayer, Co., S. Cincinnati, O

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Conductor Hangers

Berger Bros. Co., Philadelphia, Pa

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La Crosse Steel Roof. Co., La Crosse, Wis.
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Griffin Mfg. Co., Erie, Pa
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Star Expansion Bolt Co., New York N.Y

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Canton Art Metal Co., Canton, O
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Atlantic Stamping Co., Rochester, N.Y
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New England Enameling Co., New York, N. Y
Standard Stamping Co., St. Louis, Mo
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Fencing—Wire

American Steel & Wire Co., Chicago, Ill
Denning Wire & Fence Co., Cedar Rapids, Ia
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Files

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Disston, Henry & Sons, Philadelphia, Pa

Fire Arms

Standard Arms Co., Wilmington, Del

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Warren Mfg. Co., J. D., Chicago, Ill

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Enterprise Mfg. Co. of Pa., Philadelphia, Pa.

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Whitacre Mfg. Co., J. E., Rockford, Ill

Gas Stoves

Detroit Vapor Stove Co., Detroit, Mich
Odin Stove Mfg. Co., Erie, Pa
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Hardware Jobbers

Bullard & Gormley Co., Chicago,
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Hardware Specialties

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North Bros. Mfg. Co., Philadelphia, Pa
Reid-Edelmuth Mfg. Co., Brooklyn, N. Y
Sturges & Burn Mfg. Co., Chicago, Ill

Iron Enamel

Nickel Plate Stove Polish Co., Chicago, Ill

Kitchen Utensils

Atlantic Stamping Co., Rochester, N.Y
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Star Enameling and Stamping Co., Pittsburgh, Pa
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Ladders—Shelf

Milbradt Mfg. Co., St. Louis, Mo

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Lawn Mowers

Clipper Lawn Mower Co., Dixon, Ill
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Maher & Son Lightning Rod Co., Preston, Ia

Metal—Perforated

Harrington & King Perforating Co., Chicago, Ill

Metal Polish

Nickle Plate Stove Polish Co., Chicago, Ill

Metal Shingles

Canton Art Metal Co., Canton, O
Cortright Metal Roofing Co., Philadelphia and Chicago
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roofing Co., Jersey City, N. J

Mica

Brauer Supply Co., St. Louis, Mo
Munsell & Co., Eugene Chicago, Ill

Milk Cans

Sturges & Burn Mfg. Co., Chicago, Ill

Milk Pails

Elliott Mfg. Co., Warren, Ill

Miters

Whitacre, J. E. Mfg. Co., Rockford, Ill

Nails and Tacks—Copper

Hussey & Co., C. G., Pittsburg, Pa
Keystone Nail Co., Pittsburg, Pa

Nuts

Columbus Bolt Works Columbus O

Ovens

Detroit Vapor Stove Co., Detroit, Mich

Paints and Paint Specialties

Connors, Wm., Paint Mfg. Co., Troy, N. Y
Dixon, Jos. Crucible Co., Jersey City, N.J

Pencils

Dixon, Jos. Crucible Co., Jersey City, N.J

Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Pipe—Furnace

Meyer & Bro. Co., F. Peoria, Ill
Michigan Safety Furnace Pipe Co., The Detroit, Mich

Pipe Fitters

Blumer-Doscher Mfg. Co., Brooklyn, N.Y

Plungers

Berger Bros. Co., Philadelphia, Pa

Post Hole Diggers

Iwan Mfg. Co., South Bend, Ind

Pumps

Star Bucket Pump Co., St. Louis, Mo

Punches

Armstrong-Blum Mfg. Co., Chicago, Ill
Bertsch & Co., Cambridge City, Ind
Niagara Machine & Tool Works, Buffalo, N.Y
Robinson. Mfg. Co., J. M., Cincinnati, O
Weiss & Co., H. New York, N. Y

Putty—Stove

Connors Wm., Paint Mfg. Co., Troy, N.Y

Rasps

Disston, Henry & Sons., Philadelphia, Pa
Carver File Wks., Philadelphia, Pa

Rat Traps

Bromwell Brush & Wire Goods Co., Cincinnati, O

Razors

Smith & Hemenway Co., New York, N.Y

Registers

Ferrosteel Co., Cleveland, O
Henry & Scheible Co., Cleveland, O
Schwab & Sons Co., Milwaukee, Wis
Tuttle & Bailey Mfg. Co., New York, N.Y

Rivets

Columbus Bolt Works, Columbus, O

Roasters

Wheeling Corrugating Co., Wheeling, W. Va

Roofers' Supplies

Auld & Conger Co., Cleveland, O

Roofing—Iron and Steel

American Sheet & Tin Plate Co. Pittsburgh, Pa
Burton, W. J. Co., Detroit, Mich
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Friedley & Voshardt Chicago, Ill
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
La Crosse Steel Roof. Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis
Nat'l Sheet Metal Roof. Co., Jersey City, N. J
Stark Rolling Mill Co., Canton, O
Tanner & Co. Indianapolis, Ind
Wheeling Corrugating Co., Wheeling, W. Va

Roofing Cement

Auld & Conger Co., Cleveland, O
Connors Paint Co., The Wm., Troy, N.Y

Roof Paint

Dixon, Jos. Crucible Co., Jersey City, N.J

Rules

Lufkin Rule Co., Saginaw, Mich

Sash Balances

Pullman Mfg. Co., Rochester, N.Y

Sausage Stuffers

Enterprise Mfg. Co. of Pa. Philadelphia, Pa

Saw Sets and Saws

Disston, Henry & Sons, Philadelphia, Pa
Smith & Hemenway Co., New York, N.Y

Scales

Osgood Scale Co., Binghamton, N. Y
Pelouze Scale Co., Chicago, Ill

Schools—For Sheet Metal Pattern Drafting

Gray's School, New York, N. Y

Screens—Perforated Metal

Harrington & King Perforating Co., Chicago, Ill

Screws

Columbus Bolt Works. Columbus, O

Screw Drivers

North Bros. Mfg. Co., Philadelphia, Pa

Shears

Bertsch & Co., Cambridge City, Ind
Robinson, Mfg Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia

Sheets—Black and Galvanized

American Sheet & Tin Plate Co. Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Stark Rolling Mill Co., Canton, O
Tanner & Co., Indianapolis, Ind
Wheeling Corrugat'g Co., Wheeling, W. Va

Sheets—Planished

American Sheet & Tin Plate Co., Pittsburgh, Pa
Follansbee Bros., Pittsburg, Pa
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Stark Rolling Mill Co., Canton, O
Tanner & Co., Indianapolis, Ind
Ward-Dickey Steel Co., Indiana Harbor, Ind

Sheets—Steel

American Sheet & Tin Plate Co., Pittsburgh, Pa
American Steel & Wire Co., Chicago, Ill
Follansbee Bros. Co., Pittsburgh, Pa
Griffiths Charcoal Iron Mills, Washington, Pa
Inland Steel Co., Chicago, Ill
Stark Rolling Mill Co., Canton, O
Tanner & Co., Indianapolis, Ind

Sheet Metal Ornaments

Foster & Sons Co., Wm. Springfield, Ill
Friedley-Voshardt Co., Chicago, Ill
Gerock Bros. Mfg. Co., St. Louis, Mo
Keighley Metal Ceiling Co., Pittsburg, Pa
La Crosse Steel Roofing and Corrugating Co., La Crosse, Wis
Milwaukee Corrugating Co., Milwaukee, Wis

Shelf Boxes

Green & Co., A. H., New York, N. Y

Shelving

Heller & Co., W. B. Montpelier, O
Warren Mfg. Co., J. D., Chicago, Ill

Shovels

Avery Stamping Co., Cleveland, O

Siding

Milwaukee Corrugating Co., Milwaukee, Wis

Sifters

Stuber & Kuck. Peoria, Ill

Skylights

Burt Mfg. Co., Akron, O
Burton, W. J. Detroit, Mich
Canton Art Metal Co., Canton, O
Eller Mfg. Co. Canton, O
Milwaukee Corrugating Co., Milwaukee, Wis
Powers & Williams, Streator Ill

Skylight Gearing

Weiss, H. & Co., New York, N.Y

Slate Roofing

Auld & Conger Co., Cleveland, O

Slating Nails

Hussey & Co., C. G., Pittsburg, Pa

Soldering Fluxes

Ruby Chemical Co., Johnston, Ohio

Soldering Irons

McMurtry & Co., Jas. E. Chicago, Ill

Squares, Machinists'

Disston, Henry & Sons, Philadelphia, Pa

Stampings—Sheet Metal

Avery Stamping Co., Cleveland, O

Statuary

Gerock Bros. Mfg. Co., St. Louis, Mo

Steel

American Steel & Wire Co., Chicago, Ill

Store Fixtures

Heller & Co., W. B. Montpelier, O

Stoves and Ranges

A'bany Foundry Co., Albany, N. Y
Germer Stove Co., Erie, Pa
Monitor Stove & Range Co., Cincinnati, O
Mt. Penn Stove Works, Reading Pa
Odin Stove Mfg. Co., Erie, Pa
Quality Stove & Range Co., Belleville, Ill
Ringen Stove Co., St. Louis, Mo
Sill Stove Works, Rochester, N. Y
Stove & Range Co. of Pittsburgh, Pittsburgh, Pa.
Willard, Wm. G. St. Louis, Mo

Stove Mats

Stuber & Kuck. Peoria, Ill

Stove Patterns

Cleveland Castings Pattern Co., Cleveland, O
Cope Pattern, Geo. W. Wks., Detroit, Mich
Quincy Pattern Co., Quincy, Ill
Vedder Pattern Works Troy, N Y
Weller Pattern Co. Quincy, Ill

Stove Pipe

Hemp & Co., St. Louis, Mo

Stove Pipe Thimbles

Stuber & Kuck. Peoria, Ill

Stove Polish

Brauer Supply Co., A. G. St. Louis, Mo
Nickel Plate Stove Polish Co., Chicago, Ill

Stove Putty

Connors Paint Mfg. Co., Wm., St. Louis, Mo
Dixon, Jos. Crucible Co., Jersey City, N. J

Stove Repairs

Brauer, A. G., Supply Co., St. Louis, Mo

Sugar Kettles

Sperry, D. R. Co. Batavia Ill

Supplies—Foundry

Obermayer Co., S., Cincinnati, O

Supplies—Stove Dealers'

Brauer, A. G., Supply Co., St. Louis, Mo

Tapes

Lufkin Rule Co., Saginaw, Mich

Technologist

Hooper, C. N. Dubuque, Iowa

Thermometers—Oven

Evans Stamping & Plating Co., Taunton, Mass

Tin—Perforated

Harrington & King Perforating Co., Chicago Ill

Tinners' Furnaces

Bernz, Otto Newark, N. J
Clayton & Lambert Mfg. Co., Detroit, Mich
Meyer Fdy. & Mfg. Co., South Bend, Ind

Tinners' Tools

Armstrong, Blum Mfg. Co., Chicago, Ill
Auld & Conger Co., Cleveland, O
Berger Bros. Co., Philadelphia Pa
Bertsch & Co., Cambridge, Mass
Blumer-Doscher Mfg. Co., Brooklyn, N.Y
Dries & Krump Mfg. Co., Chicago, Ill
Lufkin Rule Co., Saginaw, Mich
Niagara Machine & Tool Works, Buffalo, N. Y
Robinson Mfg. Co., J. M., Cincinnati, O
Wagner, C. DeWitt, Cedar Rapids, Ia
Weiss & Co., H., New York, N. Y

Tinplate

American Sheet & Tin Plate Co., Pittsburg, Pa
Eller Mfg. Co. Canton, O
Follansbee Bros. Co., Pittsburgh, Pa
Merchant & Evans Co., Philadelphia, Pa
Wheeling Corrugating Co., Wheeling, W. Va

Tinware

New England Enameling Co., New York, N.

Tinware Trimmings

Berger Bros. Co., Philadelphia, Pa
Butler Bros., Chicago, Ill

Toggles—All Kinds

Star Expansion Bolt Co., New York, N.Y

Tools, Etc.

North Bros. Mfg. Co., Philadelphia, Pa
Simmons Hdw. Co., St. Louis, Mo
Stanley Rule & Level Co., New Britain, Conn

Tools—See Carpenters' Tools

Tools—Linemen's

Smith & Hemenway, New York, N.Y

Trowels

Avery Stamping Co., Cleveland, O
Disston, H. & Sons, Inc., Philadelphia, Pa
Griffin Mfg. Co., Erie, Pa

Tubing—Heavy Tin

Dieckmann, Ferdinand. Cincinnati, O

Tubs—Wash

Atlantic Stamping Co., Rochester, N. Y
Standard Stamping Co., St. Louis, Mo

Ventilators

Burt Mfg. Co., Akron, Ohio
Canton Art Metal Co., Canton, O
Canton Mfg. Co., Canton, O
Eller Mfg. Co., Canton, O
Friedly & Voshardt. Chicago, Ill
Globe Ventilator Co., Troy, N. Y
Iwan Mfg. Co., South Bend, Ind
Merchant & Evans Co., Philadelphia, Pa
Milwaukee Corrugating Co., Milwaukee, Wis
Powers & Williams, Streator, Ill

Wagons

Sycamore Wagon Works, Sycamore, Ill

Washers

Columbus Bolt Works., Columbus, O

Washing Machines

Knoll, Jas. H. Reading, Pa
White Lily Mfg. Co., Davenport, Ia

Wire

American Steel & Wire Co., Chicago Ill
National Wire Cloth Co., Niles, Mich

Wire Goods

Bromwell Brush & Wire Goods Co., Cincinnati, O
Deaning Wire & Fence Co., Cedar Rapids, Ia
National Wire Cloth Co., Niles, Mich
Pittsburgh Wire Co., Pittsburgh, Pa

Wants and Sales

For Paid Yearly subscribers THE AMERICAN ARTISAN will insert under this head advertisements of six lines WITHOUT CHARGE for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, business for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they "READ THE ADVERTISEMENT IN THE AMERICAN ARTISAN."

BUSINESS CHANCES.

PATENTS OFFICIAL copy "PATENT LAWS" United States sent on receipt ten cents stamps.
HUBERT E. PECK, Patent Attorney, 629 F Street, Washington, D. C.

For Sale—Sheet metal and furnace business in Denver. Established two years. Have good trade. You can get any amount of work. There is lots of building in Denver. Have full set of tools, some stock. Liberal discount for cash deal. Owner not tinner, and has other business. Fine chance for practical man. Address C. Snider, 1741 Humbolt St., Denver, Colorado. 18-3t

For Sale—Established sheet metal business consisting of tools and stock. Splendid chance for first-class mechanic; also good opening to handle hardware in connection. Must sell on account of poor health. Address P-80, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

Are you looking for a location? Do you want a good paying stock of hardware in one of Iowa's best towns. Cash only. Will bear the closest investigation. Other business interests demand my attention. Address P-82, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

For Sale: Stock of farming implements of about $4,000, consisting of implements, buggies, wagons, harness, blankets, robes, whips, windmills, manure spreaders, gasoline engines, barb wire, woven wire fence. Good location. Only stock in town and good farming country. Good buildings, nicely located, rent reasonable. Will trade for improved farm in Iowa, or Southern Minnesota. Give full description of farm in first letter. Address P-84, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

For Sale: Hardware store, established 27 years, in one of Chicago's thriving suburbs. Must sell on account of death of owner. To a cash purchaser here is an opportunity. Can be bought at once for $4,000. Address Mrs. L. H. Johnson, Pullman, Illinois. 18-2t

For Sale—One 30" Wright sheet iron folding machine, $3. Address W. J. Evert, 315 So. Sheridan Road, Waukegan, Illinois. 17-3t

For Sale—Sheet metal furnace business in Denver, the most rapidly growing city in the United States to-day. Established two years; good trade; can be increased at will. Complete set of tools, some stock at less than invoice and good will. Owner not a tinner, has other business; fine chance for practical man. Address C. Snider, 1741 Humboldt St., Denver, Colorado. 16-3t

HELP WANTED.

Wanted, Tinner—First-class for roofing, spouting and general repair work. Must be competent and reliable. Address Box 38, Albany, Indiana. 18-3t

Tinner and Furnace Men Wanted—First-class men only. Can also use a few good young men just finishing trade. Give full particulars in first letter. Address P-83, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

Tinner Wanted—At once. With one or two years' experience to do roofing and eave troughing. Good wages. Address Edward C. Plank, Forest Junction, Wisconsin. 18-3t

Wanted—Tinner and all around man for town of 900 population in Northern Illinois. One who has had some experience in plumbing preferred. Can guarantee steady work for right party. Address William O. Lee & Co., Huntley, Illinois. 18-3t

Wanted Tinner—One who can do all kinds of tin and furnace work, and such work as comes to the ordinary tinshop, and would like to make a permanent home here. Address Harrington Bros., Pawnee City, Nebraska. 18-1t

Wanted—First-class all around tinner. Steady job, no plumbing. Boozers and "would be's" save stamps. Address Jno. F. Cartwright, 815 State St., Bowling Green, Kentucky. 18-3t

Tinner Wanted—To take charge of shop. Also do outside work. No pump work. State wages wanted in first letter. Address P-77, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Wanted—Young man acquainted with the warm air, furnace and sheet metal trade, that is thoroughly competent and reliable and who will want to take an interest in the business if found satisfactory. Address P-74, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Wanted, Tinner and Furnace Man—Must be strictly A-1 at general tin work and fully understand hot air heating. Must be over 35 years. Have a permanent place and will pay high wages to first-class man. Must be strictly temperate. Married man preferred. Address P-75, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Wanted, Tinner—To take charge of tinshop. One who is acquainted with furnace and roof work. Address C. A. Peck Hdw. Co., Berlin, Wisconsin. 17-3t

Wanted, Tinsmith—With two years' experience. One who speaks French preferred. Must be reliable and industrious. Correspond with Sorenson & Owens, Rolette, North Dakota. 17-3t

Wanted—All around tinner who understands plumbing, also steam, hot water and hot air heating. Steady job the year around. Only good, steady, reliable man need apply. Wages $70 per month. Scandinavian preferred. Address S. O. Stensland, Beresford, South Dakota. 17-3t

Wanted, Tinner and Plumber—In town of 800. Must be good all around man able to do furnace work, also clerk in store. To such we will give steady work. State wages expected and send reference in first letter. German preferred. Address Cash Hardware Co., Cedar Bluffs, Nebraska. 17-3t

Wanted, Foreman—For tin, cornice, sheet metal and warm air furnace work. First-class mechanic. No labor troubles. Address McGuire Bros., Rockford, Illinois. 17-3t

Wanted — Two good wood carvers to work on stove patterns. Apply to Quincy Pattern Co., Quincy, Illinois. 17-3t

Wanted—At once, all 'round man to do plumbing, heating and sheet metal work. Must be competent in all lines. State experience and salary. Work year around. Address W. L. Grimes, Batavia, Illinois. 17-3t

Wanted, Tinner and Plumber—General mechanic for small town where there is plenty of gasoline engine work. Must be all around man. Address C. Weydert, Bayou Sara, Louisiana. 17-3t

Wanted, Tinner—One who can do tinning, guttering and heating, also repair pumps, windmills and help on machinery. Address M. B. Weaver, Cary Station, Illinois. 17-3t

Wanted—We have a good position to offer a good reliable tinner. No plumbing or well work. Want a man willing to help in store some. Address Sargent Hardware Co., Monticello, Indiana. 16-3t

Wanted — First-class tinner. Steady work. Must be sober man and mechanic. Address H. P. Fulton, Marshall, Minnesota. 16-3t

Wanted, At Once—Man that can do ordinary tinsmithing and pump and pipe work; also clerk in hardware store, set up farm machinery, etc. Address, stating wages, McIntosh Hardware Co., Kalispell, Montana. 16-3t

SITUATIONS WANTED.

Situation Wanted—By first-class tinsmith and plumber. Good on furnace, water or steam heating, combination work, job work of all kinds. Twenty years' experience. Married, sober and reliable. Address P-79, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

Situation Wanted—By hardware man of ability. Eleven years' experience. Unquestionable reference. Married, age 35. First-class position only considered. Address P-81, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 18-3t

Situation Wanted—By young man 22 years old, as second tinner. Have had four years' experience. Willing to do anything. Address H. George Eder, La Valle, Wisconsin. 17-3t

Situation Wanted—As salesman on the road or in one of the departments of stove and steel range foundry. Thirty years' experience in manufacturing of stoves and ranges and selling same. Would go on the road or the inside. Address P-76, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 17-3t

Situation Wanted—By good tinner who understands plumbing and steam fitting. Prefer small town. Address W. Jones, 1147 Forest Home Ave., Milwaukee, Wisconsin. 17-3t

Wanted—By experienced salesman, a good line, either salary or commission. Familiar with sheet metal line and specialties. Address W. P. Fisher, 726 LeClaire St., Davenport, Iowa. 16-3t

Wanted, Position — As manager of hardware store. Ten years' experience. Can furnish best of bank and store reference. Address P-73, care The AMERICAN ARTISAN, 355 Dearborn St., Chicago. 16-3t

Situation Wanted—By competent all around tinner in small city or county seat. Am married man, sober, reliable and steady. State wages and conditions in first letter. Address F. E. W., R. F. D. 6, box 50A, Freeport, Illinois. 16-3t

SPECIAL NOTICES.

HARDWARE WANTED.

Wanted in exchange for good improved farm, stock of hardware, or hardware and implements. Be sure to state what the stock invoices and give value of any real estate that is to be included with the stock. Address Hardware, care THE AMERICAN ARTISAN, 355 Dearborn street, Chicago. 16-3t

WANTED

Live, up-to-date salesman for Wisconsin and Minnesota. State age, experience and salary wanted. Address W-6, care THE AMERICAN ARTISAN, 355 Dearborn street, Chicago.

WANTED

Salesman to sell a modern, **up-to-date line of Stoves, Ranges and Furnaces** in the State of Iowa. A splendid opportunity for a man who is capable of building up a trade and holding it. Address Iowa, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago, Ill. 15-ufn

WANTED

Stove salesman for an A1 up-to-date line of **Stoves, Ranges and Furnaces** on commission (to be used as a side line), in North Dakota and Nebraska. A splendid opportunity for parties now calling on trade that now handle these commodities. Address W-4, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago, Ill. 15-ufn

For Good Ventilation and Light

The attic can be easily changed into a pleasant habitable room by the use of the Burt Ventilator. The residence of Mr. C. P. Taft, brother of the President, was remodeled and furnished with

Burt Combination Skylight Ventilators

which has done wonders in providing fresh air and light to the darker rooms of the house.

Burt Ventilators have an extraordinary capacity for properly ventilating any building. They are made with metal or skylight glass tops with patented sliding sleeve dampers adjusted to any degree, are storm and dust proof at all times, whether open or closed, **and never shut out the light.** Burt Ventilators are the standard ventilators of America.

Send for our 96-page catalog, giving fine illustrations of mills, shops, factories and residences where Burt Ventilators are in successful use.

Notice Sliding Sleeve Damper (Patented)

THE BURT MFG. CO., 650 Main St., Akron, O.

GEO. W. REED & CO., Montreal, Sole Manufacturers of "Burt" Ventilators for Canada

SPECIAL NOTICES.

For Sale

Patterns, special tools, jigs, templates, stock and good will of a good paying business at a big bargain. Address H. V. Hawk, Dayton, Ohio. 18-1t

For Sale

An Ohio Corporation manufacturing Warm Air Furnaces, incorporated for $10,000 has 25 shares of stock to sell to up-to-date furnace men. This Company is composed principally of heating men located at different points. This Company's affairs will bear the closest scrutiny. The stock is clean and "dry". Shares $100 each. Address W8, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 18-4t.

Wanted

Traveling salesmen for State of Iowa by manufacturer of enamelware and tinware. State salary expected and name references. None but experienced and well acquainted with the territory considered. Address Salesman, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago.

Sheet Iron Worker

Wanted. Man capable of laying out work. State age, references and wages required. Address W-9, care THE AMERICAN ARTISAN, 355 Dearborn Street Chicago. 18-1t.

A GOOD CHANCE

For a first-class plumber, steam and hot water fitter to go in business for himself. An honest, first-class workman can do well here. Best references. This is not a fake. For particulars, address B-100, care THE AMERICAN ARTISAN, 355 Dearborn St., Chicago. 13

SALESMEN

covering the hardware and sheet metal trade can earn liberal commission by soliciting subscriptions to THE AMERICAN ARTISAN as a side line. Write for agents' terms. THE AMERICAN ARTISAN, 355 Dearborn St., Chicago.

Stove Patterns for Sale

Complete patterns for Oak-Air-tight and Smoke Consumers — also stove pipe radiators. Full line of sizes. Will sell cheap. Champion Steel Range Company, Cleveland, Ohio.

For Sale

A clean and up-to-date stock, consisting of hardware, stoves, ranges, harness, paints and oils and tin shop in connection. Stock will invoice about $4,000.00, yearly sales $15,000.00. This is a rare opportunity for someone wishing to enter hardware business to take up an established business with little competition in town of 500, surrounded by the best farming land in Central Illinois. We also wish to sell our store buildings. For additional information address W-3, care THE AMERICAN ARTISAN, 355 Dearborn Street, Chicago. 14-ufn.

Subscription Solicitors Wanted

WANTED—Agents to solicit subscriptions to the THE AMERICAN ARTISAN in every state in the Union. Can be handled as a side line by agents who sell stoves and sheet metal wares. Write for agent's terms and state what territory you can cover.

SUBSCRIBERS who can spare a few hours a week can make money on the side by soliciting subscriptions in their vicinity or among their fellow workers. Write for particulars.

SAMPLE COPIES FREE UPON REQUEST

THE AMERICAN ARTISAN

355 Dearborn St., Chicago

WHY NOT A BUSINESS OF YOUR OWN?

I can tell you of a retail line in which the profits and chances of success are exceptionally large. And I know of a few splendid locations for such stores. Write me to-day for full particulars. EDWARD B. MOON, 13 West Randolph Street, Chicago.

MANY BOOKS IN ONE

WEBSTER'S INTERNATIONAL DICTIONARY

Do you know that the INTERNATIONAL answers with final authority ALL KINDS of questions in The Trades, Arts and Sciences, Geography, Language, Biography, Etc.? Plan of Contents as follows:

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Guide to Pronunciation.
Scholarly Vocabulary of English.
Dictionary of Fiction.
Gazetteer of the World.
Biographical Dictionary.
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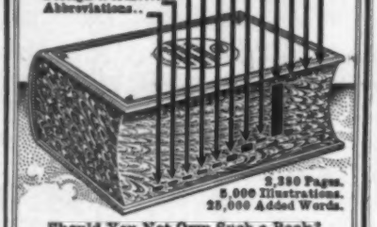
English Christian "
Foreign Words.
Abbreviations.



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Write for "Dictionary Wrinkles," and Specimen Pages, Free. Mention in your request *this paper* and receive a useful set of Colored Maps, pocket size.

G. & C. MERRIAM CO., Springfield, Mass.

HENRY CHAFFEE, AMBRIA, IND., WRITES:

"Please take my ad. out of THE AMERICAN ARTISAN. I got two or three letters daily and have something like twenty jobs in view."

DIXON'S PIPE-JOINT COMPOUND

for all screw and flange connections. Makes thoroughly tight joints, but allows the joints to be unmade at any time without damage to tools or fittings. Write for free sample.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

A Book of Value

THE AMERICAN ARTISAN ADVERTISING MANUAL

is a book of inestimable value to the retailer and should have a place in every store.

"That's What They All Say"

Read for yourself the opinions expressed by competent judges as to its value to retailers:

From "DOMESTIC ENGINEERING," Chicago

"The book is of undoubted worth as an aid to the retail merchant in preparing that desirable but illusive style of advertising copy known as "printed persuasion."

From "NATIONAL HARNESS REVIEW," Chicago.

"Its pages teem with salient points concerning texts, typographical displays and other essentials which go into the make-up of a business getting announcement."

From "PRESTO," Chicago.

"It would be impossible to estimate the value of the book to hardware merchants."

From "TRADE," Detroit, Mich.

"This book is thoroughly practical."

From "THE BUFFALO EXPRESS," Buffalo, N. Y.

"It contains many reproductions of successful advertisements."

From "THE WEEKLY IMPLEMENT TRADE JOURNAL," Kansas City, Mo.

"It is a reproduction of the retailers advertisements and criticisms of same."

From "FARM IMPLEMENT NEWS," Chicago.

"It is a compilation of all kinds of display advertisements as they actually appeared in different newspapers."

From "THE HOUSE FURNISHING REVIEW," New York.

"This book is useful to the ad man."

From F. R. SWITZER CO., "SUCCESSFUL ADVERTISING," Utica, N. Y.

"We have glanced through THE AMERICAN ARTISAN ADVERTISING MANUAL, and it certainly ought to be of considerable interest to the retail hardware trade, and we think you deserve considerable credit for the undertaking."

From "THE THRESHERMEN'S REVIEW," St. Joseph, Mich.

"A very effective monitor of retail advertising." "It should be a very valuable book for the dealer who wants newest ideas and best methods of expression in ad writing."

From "HARDWARE," New York.

"The book is a practical help for hardware dealers."

From "STOVES AND HARDWARE REPORTER," St. Louis, Mo.

"A fund of information on the subject of advertising calculated to enable the retail dealers to obtain the best results from newspaper advertising."

From "THE METAL WORKER," New York.

"THE ADVERTISING MANUAL will be found of assistance to stove dealers, sheet metal workers, plumbers, hardware men and all who seek to extend their business by advertising."

From "THE TRADESMEN," Chattanooga, Tenn.

"If the average hardware or stove dealer, to whom this book should prove of especial benefit, had some assistance in the preparation of his advertising copy, he would be able to prepare advertisements at all times that would be of the business getting kind."

Improve your advertising, Mr. Dealer. THE AMERICAN ARTISAN ADVERTISING MANUAL will aid you. Secure a copy to-day.

The book retails at $3.50, and it can be obtained from your bookseller or from

DANIEL STERN

PUBLISHER

355 Dearborn Street, Chicago

TRIPLEX BUFFS

will save you 50% of the present expense in your Plating and Polishing Departments.

They wear twice as long.

Save 20% in composition.

Can be used for cutting or coloring up.

Can be remade to original sizes when worn down.

Stove manufacturers and others highly recommend them.

We are the sole manufacturers.

Our TWO-BAR SILVERITE ANODE is made in any length desired and is a light sound anode, readily handled and easily cleaned.

Important Notice—Any folded buff not stamped with our trade mark "Triplex" used or sold is an infringement on our license patent and our rights in this respect will be strictly enforced.

Zucker & Levett & Loeb Co. 516-524 West 25th Street NEW YORK CITY

We have been manufacturing

"Everything you need in your foundry"

Since 1874

Get our 400 page catalog No. 40A

The S. Obermayer Co.

CINCINNATI
CHICAGO
PITTSBURGH

OBERMAYER

QUINCY PATTERN CO
IRON & WOOD
STOVE PATTERNS
QUINCY, ILL.

THE RIGHT KIND
of Oven Thermometer Is

THE "ACME"

THE "ACME"

MADE BY EVANS STAMPING AND PLATING COMPANY TAUNTON, MASS.
Western Agent, C. H. MATTHEWS, Detroit, Mich.

PATTERNS

For Stoves and Heaters
First-Class in Wood and Iron
Vedder Pattern Works, Troy, N.Y.
Established 1855

PATTERNS

For Stoves and Heaters
The Cleveland Castings Pattern Co.
CLEVELAND, OHIO

LOOKING
for a place to
buy
STOVE REPAIRS?
Try

A. G. BRAUER SUPPLY COMPANY
316-318 N. Third St., St. Louis Mo.

WELLER PATTERN CO
DESIGNS and ESTIMATES FURNISHED FOR ALL KINDS OF STOVE PATTERNS
QUINCY, ILL.

THE GEO. W. COPE STOVE PATTERN WORKS
Cor. Brush and Woodbridge Streets
DETROIT MICHIGAN

PEERLESS ENAMEL

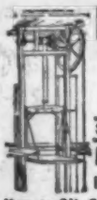
ASK YOUR JOBBER

GLOSS BLACK FOR STOVE PIPES AND ALL IRON WORK

ALUMINUM FOR RADIATORS PIPES, ETC.

WRITE FOR SAMPLE

NICKEL PLATE STOVE POLISH CO., MFRS.
CHICAGO



ELEVATORS

Improved, Quick and Easy Rising Steam, Electric and Hand Power.

SEND FOR CIRCULAR

KIMBALL BROS. CO.
1031 Ninth St., COUNCIL BLUFFS, IOWA
Kansas City Office, Water Works Bldg., Kansas City, Mo.

TONCAN METAL SHEETS

BLACK **GALVANIZED**

Anti-Corrosion **Rust-Resisting** **Economical**

Peculiarly adapted for

Conductor Pipe	Cornices	Skylights
Roofing	Ridge Roll	Eaves Trough
Metal Window Frames	Ventilators	Siding, etc., etc.

Costs less than Charcoal Iron,—not much more than Steel. Will work up as well as Open Hearth Steel. Doesn't crack and break like Charcoal Iron.

PRICES FROM YOUR JOBBER

OR

The Stark Rolling Mill Co., Canton, Ohio

WRITE US FOR BOOKLET

GRIFFITHS GENUINE CHARCOAL IRON ROOFING PLATES

KNOBBLING FIRE

GRIFFITHS GENUINE GALVANIZED SHEETS

The same base material that was made thirty years ago. Nothing but Charcoal Iron rolled into Tin Plate and Sheet Iron at the

GRIFFITHS CHARCOAL IRON MILLS

Knobbling fires, hammers, bar mill and finishing mills at

WASHINGTON, PA.

APOLLO GALVANIZED SHEET STEEL
AMERICAN BESSEMER SHEET STEEL
BLUE ANNEALED SHEET STEEL

TRY US

PRICES LOW ASSORTMENT COMPLETE

THE BASSETT-PRESLEY CO.

CLEVELAND, OHIO

INLAND
OPEN HEARTH SHEET STEEL
SOFT AND EASY WORKING

GALVANIZED Perfectly Coated—will not peel.
BLACK Blue Annealed and Box Annealed.
ROOFING Painted and Galvanized—all kinds.
SEND FOR CATALOGUE

INLAND STEEL COMPANY .·. CHICAGO

THE BEST PROOF

THAT A GOOD TIN ROOF LASTS IS—THAT IT HAS LASTED.

MF

32 POUNDS COATING
ROOFING TIN

"The Terne which turns the elements"

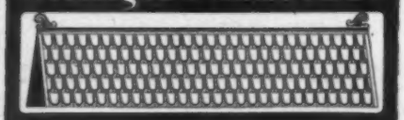
is not the experiment but the result of long years of testing and service right on the roof. For ductility, durability and heavy uniform coating, MF has always maintained the highest standard of excellence.

One roofer says—"After an experience of over forty years as workman and proprietor in the tinning business, I have never found a roofing plate so satisfactory as MF."

American Sheet and Tin Plate Company,
FRICK BUILDING, PITTSBURGH, PA.

WALTERS'

Shingles that last

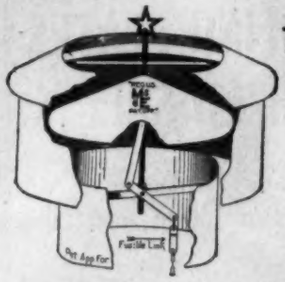


Made from Galvanized Tin and Painted Tin
Storm, Rust and Fire Proof
Do you want to increase your business? **This is your opportunity.** Write for catalogue, samples and prices.

National Sheet Metal Roofing Co.
JERSEY CITY, N. J.

J. K. SCHICK, Fairbury, Ill., writes:

"Your paper has furnished me with more than ten times the value of its cost."



The "STAR" VENTILATOR

AND

The FIRE RETARDING "STAR" VENTILATOR and DAMPER COMBINED

Embody everything in the Best Scientific Storm Proof Ventilator.

MERCHANT'S METAL "SPANISH" TILES and "GOTHIC" SHINGLES.

These Tiles and Shingles have proved meritorious for years. They are in demand where ornamentation is essential. Also Lightness and Durability are special features of merit.

Write for Booklets.

"Reg. in U. S. Pat. Off."

Merchant & Evans Co.

Sole Manufacturers

Philadelphia New York Brooklyn Baltimore Chicago Kansas City Denver

Standard Metal Shingles

The Canton Ventilator

Made with Metal and Glass Tops and with and without **Automatic** closing device.

THE CANTON MFG. CO.
CANTON, OHIO
Makers of
Cornice, Skylights, Metal Ceilings, Eaves Trough, Conductor Pipe, Etc.

Iwans' Volcano Revolving Chimney Top

Sizes 6 to 12 inches. Sold by jobbers of Hardware and Tinners' Supplies.

Notice one of its **Strong Features.** The upward sloping opening in back of hood creates a constant upward draft, no matter how depressing the atmosphere.

You need it for some of your customers' chimneys.

Send postal for catalogue.

IWAN BROTHERS
Mfrs. of Hardware Specialties
SOUTH BEND, IND.

Manufacturers of

Steel Ceilings and Side Walls, Cornices, Skylights and Fireproof Windows, Roofing

Eastlake Metal Shingles
Prepared Asphalt Roofings

Send for Catalogue

The W. J. BURTON COMPANY, Detroit, Mich.

The Powers AUTOMATIC Chimney Top

Iron mountings only or complete with cover and vane.

Double the sale and triple the efficiency of smoke stacks.

Powers & Williams
Streator, Ill.

Ask us for prices on skylight glass and metallic skylights.

CUT THIS OUT

To the Publishers **The American Artisan and Hardware Record**
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue

NAME .....

ADDRESS .....

TOWN .....

STATE .....

Let's Get Together, Tinners

you need dollars; we need your co-operation. We're doing the advertising, creating the demand, getting the orders, too—what we want is more men to act as our agents in territory not already assigned to reap the reward of our aggressive campaign for new business.

Will you join us and fill your own pockets? or will you drop into the ranks of the "has-beens?"

Decide right now and fill in this coupon.

TEAR OFF HERE

CORTRIGHT METAL ROOFING CO., Philadelphia.

Gentlemen: I'll act as your agent in this territory if you'll show me how to get business, and do the advertising for me.

Name .....

Address .....

Business .....

La Crosse Steel Roofing and Corrugating Co.

LA CROSSE, WISCONSIN

MANUFACTURERS OF

EAVES TROUGH
CONDUCTOR PIPE
CUT OFFS
MITRES, ENDS AND DROPS
ROOFINGS AND SIDINGS
STEEL CEILINGS
CORNICES
SKYLIGHTS

Quick Shipments Our Specialty *Send for Catalog*

Plecker's *Corrugated* Expanding *Conductors*

Have no Cross Seams. Made of Galvanized Iron in ten-foot lengths.

[redacted]

Will not burst when full of ice.

CLARK, QUIEN & MORSE, PEORIA, ILL.

Ridge Tile and Finial Ornamental Roof Finish

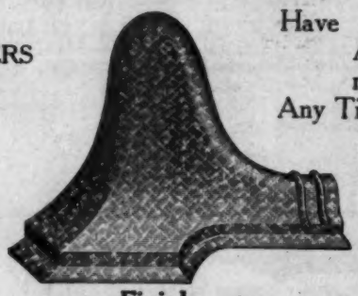
REASONABLE PRICE ABSOLUTELY WEATHER PROOF
TIGHT STIFF JOINT ECONOMICAL
Stamped from Prime Terne Plates
Painted and Galvanized After Stamping

WILL LAST AS LONG AS THE BUILDING ITSELF

THEIR SHORT LENGTH RENDERS THEM EASILY HANDLED AND TRANSPORTED.

Have Appearance of Earthen Tile.
Are much cheaper, and not liable to breakage.
Any Tinner can Apply them Properly.

Tile



Finial

For Further Information and Prices, Write

WHEELING CORRUGATING COMPANY
WHEELING, - - W. VA.

BRANCH OFFICES AND WAREHOUSES:

BOSTON, MASS. CHICAGO, ILL. PHILADELPHIA, PA.
CHATTANOOGA, TENN. NEW YORK CITY ST. LOUIS, MO.

When Ordering **Charcoal Iron Conductor Elbows**

Specify With

GUARANTEE *F. Dieckmann* Stamped in the Metal.

CHARCOAL IRON

Makers of the Elbows which can be erected without Refitting and Solder, save Labor and Material.

THE FERDINAND DIECKMANN CO.
Station B, CINCINNATI, OHIO

PATENTED

ARTISTIC METAL CEILINGS AND SIDE WALLS

Ours is one of the largest lines of beautifully designed Metal Ceilings on the market. We have ceilings to suit every taste and condition and ceilings that will assuredly give satisfaction.

Our plates are accurate—we cut the beads in the dies after casting a square by a process entirely original with us—this means perfect joints and a saving in the cost of erection.

LET US SEND YOU CATALOGUE "A" YOU WILL BE PLEASED WITH IT

Wm. FOSTER & SONS SHEET METAL WORKS
1000 E. CARPENTER STREET - - - SPRINGFIELD, ILLINOIS

Henry Grubb, Manteno, Ill., writes: "Please discontinue my ad. in the Situations Wanted column, as I have gotten so many answers that I don't know which to take. Also please continue my subscription to the paper."

Gray's School Of Sheet Metal Pattern Drafting

THIS IS THE MOST THOROUGH, PRACTICAL AND ADVANCED course in Sheet Metal Pattern Drafting to be had, and costs less than any other.

Our scholars make rapid advancement because we teach pattern drafting only, using short, quick methods, and do not take up their time with ARITHMETIC OR ANY OTHER PRELIMINARY STUDY.

AN EDUCATION is not necessary in order to become a good pattern cutter. If you are AMBITIOUS and PRACTICAL, that is all that is necessary. Write for full information, and full size school drawing. Enclose 4c in stamps to cover postage.

GRAY'S SCHOOL
1028 Jackson Ave.,
NEW YORK CITY.
When writing please mention this journal.

Makers of LOCK JOINT METAL SHINGLES. Will not only save money, but secure the best Metal Shingle on the market. Write for prices and get our samples.
ELLER MFG. CO. : : CANTON, OHIO

METAL CEILINGS
AND
SIDEWALLS

Watch this space for our announcements of special features of interest to every contractor.

The Canton Art Metal Co.
CANTON, OHIO

New York Branch
525 W. 23rd St.

Minneapolis Branch
253 Second Ave. S.

Gerock Bros. Mfg. Co.

Sheet Metal Ornaments and Statuary

Detail Work a Specialty
Ask for Catalogue

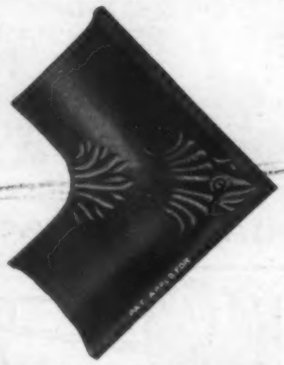
1227 Manchester Ave.
ST. LOUIS, MO.

The F.-V. Co. Ornamental One-piece Mitre

THE FINEST ONE-PIECE MITRE ON THE MARKET

ORNAMENTAL
DURABLE
CHEAP

Write for Prices and Samples



Friedley-Voshardt Co., 194-204 Mather Street, **Chicago**

C. G. HUSSEY & COMPANY
PITTSBURGH, PENNA.
Manufacturers of

Soft Copper
Copper Gaskets,
Copper Bottoms,
Soldering Irons,

Copper Nails and Tacks
Tinned Copper,
Polished Copper,

Cold Rolled Copper.
Special Shapes Sheared or Stamped
Slating Nails,

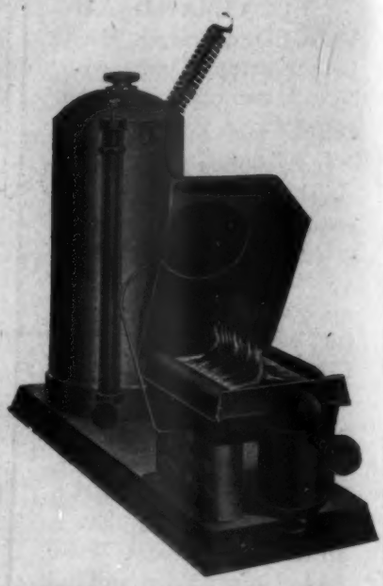
PROMPT SHIPMENT FROM STOCK.

MORE HEAT FOR LESS MONEY

The only furnace made which forces **Both Hot Blasts** from the outside to the center is

The Lundy Double Blast SOLDERING FURNACE

(Other furnaces force the heat from the center out, which means a continual loss of heat.)



We guarantee that **THE LUNDY** will heat irons faster than a tinner can cool them.

That it will heat irons more than twice as fast as any other furnace made.

That it uses less gasoline than any soldering furnace on earth.

We would be pleased to forward descriptive matter upon request. Write for it.

MEYER FOUNDRY AND MFG. CO.

SOUTH BEND, IND.

Steel Cornice Brakes

Do the GREATEST Variety of Work

Strongest Brakes Made
Never Get Sprung
Sold at the Lowest Price

Dreis & Krump Mfg. Co.
Halsted & 32nd Sts., Chicago, Ill.

ROOFING SLATE

We operate our own quarries, manufacture and sell all grades of Slate, Roofers' Supplies, Tools, Cement, Nails, Felt.
Write for delivered prices.

THE AULD & CONGER CO.
999 Prospect Street
CLEVELAND, OHIO

Slip Roll Former

Tools for Sheet Metals

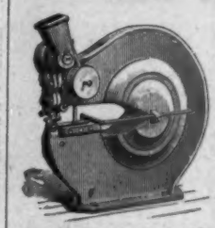
INCLUDING

Tinners' and Roofers' Tools, Shears, Punches, Presses and Dies, Can-Making Machinery

MADE BY

NIAGARA MACHINE & TOOL WORKS
BUFFALO, N. Y.

LEVER PUNCH



This Lever Punch is made any required size. It is a convenient tool for punching plates, bars or angles. We build a complete line of Shears, Punches and Bending Rolls, all sizes, hand or power.

Write for Catalog "F."

BERTSCH & CO.
CAMBRIDGE CITY, IND.

PORTABLE PUNCH No. 20

Made entirely of STEEL

Punches ¼ in. hole in ¼ in. and equivalent

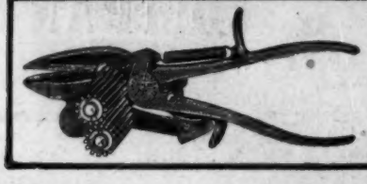
Let us send you one on trial.

Write for circular and price of this and other Marvel Punches and Shears.

MARVEL

Patent applied for.

ARMSTRONG-BLUM MFG. CO.
106 N. Francisco Ave., Chicago, Ill.



Combination Pipe Fitter

A Complete Outfit for Working Sheet Metal Pipes.

Cuts Stove, Heater and Ladle Pipes at any angle. Will also do the Crimping. Write for Circulars and Prices.

BLUMER-DOSCHER MFG., CO.
408 Crescent St., - Brooklyn, N. Y.

Collar Edging Rolls

Deep beat. Positively guaranteed not to cut the metal. Very rapid. No experience required.

Send for circular.

C. DeWITT WAGNER,
Cedar Rapids, Iowa.

No. 32 Torch

$4.00 Net

The World's Best Quart Combination Torch.

That is what mechanics, who have carefully tested and used this torch, and have therefore had an opportunity to compare it with other makes say. In fact, the unanimous verdict is, if other makes cost nothing a mechanic could not afford to use them. Try a No. 32 torch, you will be pleased.

Jobbers supply at factory price, or we will ship direct, if cash accompanies the order.

Clayton & Lambert Mfg. Co.
Detroit, Mich., U. S. A.

"Always Reliable"

OUR No. 21 TORCH BEST IN THE MARKET

This Torch is far superior to any other torch with pump in body; having in addition to the regular automatic cork check a positive shut-off by screwing down pump plunger, which closes the needle valve in bottom of pump.

Packed one in wooden box, properly labeled. Write for our catalog No. 10 on furnace and torch, also catalog No. 5 on plumbers' tools, etc.

Pat. applied for.

OTTO BERNZ
21-43 So. 15th St. NEWARK, N. J.

H. WEISS & CO.
20 Cliff Street, NEW YORK

Skylight Gearing and Chain Lifts

Tinsmiths' and Plumbers' Tools

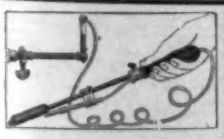
Cornice Makers' Tools

Coppersmith's Tools

Pipe Threading Machines

Second-Hand Goods Bough Sold and Exchanged

Punch, Shear and Bender Combined for ¼" Iron



LOOK! Something New. — A Soldering Iron that keeps hot and tinned. Just right for continuous work by regulating gas and air. Sold with or without Soldering Copper. Attachments to fit any iron $1.50. Coppers 50c each extra. Charges prepaid. Phosphor-Bronze Wire Gauze Dynamo Brushes for Platers.

JAMES E. McMURTY & CO., 319 Lincoln Ave., Chicago, Ill.

C. N. HOOPER, Dubuque, Ia.

Vitreous Enameling TECHNOLOGIST

Designs, builds and starts new plants, improves quality and reduces the costs in those already established.

THE HARRINGTON AND KING PERFORATING CO.

PERFORATED METALS
OF EVERY DESCRIPTION AND FOR ALL PURPOSES
FOR SCREENS OF ALL KINDS

No. 212 NORTH UNION STREET, CHICAGO, ILL.
New York Office, 114 Liberty Street.

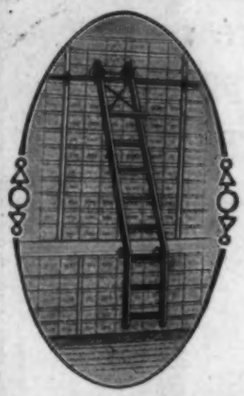
RUBY FLUID

Soldering and Tinning Flux

It is anti-rusting, non-corrosive, non-poisonous and non-explosive, not affected by age, change of temperature, or exposure in open vessels. It is a perfect flux for GALVANIZED and ALL other metals. Shipped in tin cans, ready for use. On approval. Ask for booklet.

The Ruby Chemical Co., Johnstown, Ohio, U. S. A.

Chas. M. Hoover, Sales Mgr., 54 North Clark St., Chicago.



The Milbradt Ladders

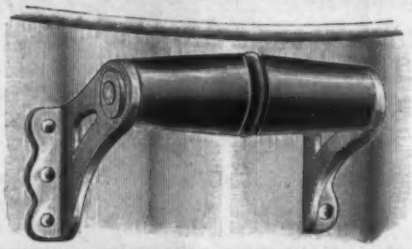
ALWAYS PROVE HIGHLY SATISFACTORY

because they are made of the very best material that can be obtained, finished up in first-class style, and as there is nothing about them to give or wear out, or get out of order, will last indefinitely.

Write for our illustrated catalogue.

MILBRADT MFG. CO.
1440 N. 8th Street, - - ST. LOUIS, MO.

KevstoneBoilerHandles



No. 1 Regular size for oval boilers.

No. 2 Regular size for square boilers.

No. 3 Extra heavy for oval boilers. can be shaped to fit square end boilers.

The illustration herewith, shows the No. 3. The sides are heavy stamped steel, nicely tinned.

Send for samples.

BERGER BROS. CO., Philadelphia
Warerooms and Factory, 100 to 114 Bread Street.

TO THE AMERICAN ARTISAN:

You may discontinue my L-84 and L-85 ads. I have had thirty answers in the last few days and I think I will be able to do business with some of these people. You may continue my L-77 ad. We can certainly reach the people through your advertising medium.

W. A. COVELL, Janesville, Wis.

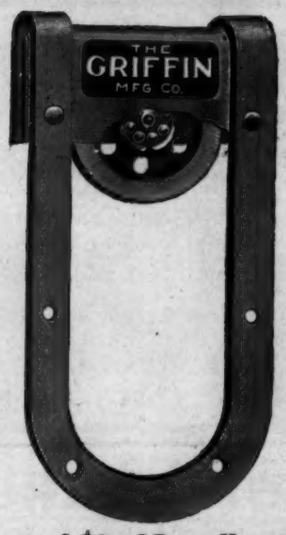
LIGHTNING RODS

We manufacture Pure Copper Wire Cable Lightning Rods, made of 28, 30 and 49 Wires, with complete outfit of trimmings.

E. A. FOY & CO., Cincinnati, Ohio

Trade Supplied at Lowest Rates.
Send for Catalogue "B."

GRIFFIN'S



Improved Steel Door Hangers

Made Entirely of Steel
(Wheels accepted)

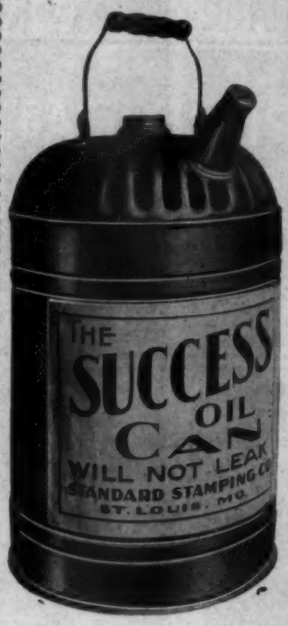
These Hangers have hard steel Axles and Roller Bearings. Anti-Friction on any length of track.

Guaranteed to handle the heaviest doors satisfactorily.

Write for complete catalog of Hinges, Butts, Shelf Brackets, Door Bolts, etc.

THE GRIFFIN MFG. CO.
Home office and Factory
1500 Cherry St., ERIE, PA.
Chicago office 85 E. Lake Street.

STANDARD HORSE NAIL CO.
NEW BRIGHTON, PA., U.S.A.
MANUFACTURE
A Full Line of Horse Nails
Send for Catalogue, Prices & Samples.



WILL NOT LEAK!

"Success Oil Cans"

Have solved the problem. No more cans returned because they *leak* if you buy Success Oil Cans. Four sizes; 1, 2, 3, and 5 gallons. All made of heavy material. Large spout, raised bottom, assorted colors, red and blue lacquer.

Write for prices and further particulars.

Made solely by

STANDARD STAMPING CO.
2000-2006 N. Broadway
SAINT LOUIS, - MO.

WILL NOT LEAK!

Maher's Pure Copper Cable

We now have the best Lightning Rod Factory, and the best of machines for twisting our cable. We make all sizes of Pure Copper Cable—30, 32, 34, 36, 40—or in fact any size you want, and our fixtures are the best that can be made—we manufacture them all and know just what they are. We also loan you one of the best static machines on earth free with an order for 2,000 ft. We use the purest copper we can buy and will guarantee it over 99% pure. And this season we have the price and that is what we are all looking for. We do not want all the profit and are willing to divide with you. Just drop us a line and we will explain and send samples of the best Copper Cable Lightning Rods and Fixtures at a price that you can make some money handling it.

MAHER & SON LIGHTNING ROD CO., Preston, Iowa

ARE YOU ON?

If not, get on to the fact that we are sole manufacturers of the celebrated **Silver Colored Strand Pure Copper Lightning Rods,** containing 30 pure Copper wires uniformly woven into a cable. This trade-mark is best appreciated on the full reel. It denotes quality and workmanship of the highest order. Farmers want it on first sight and it doesn't cost more than the ordinary.

Every reel bears our trade-mark. None genuine without it.

Our Fixtures and Ornaments are good looking as well as good wearing.

Send for our beautifully colored catalogue "B" and let us negotiate with you for unoccupied territory.

"ELECTRA" LIGHTNING ROD CO. CRESCO, IOWA.

WE HAVE A HARDWARE DELIVERY WAGON THAT YOU CAN DEPEND UPON

Body 20 inches from the ground, full width; regular height wheels, and yet will turn short.

Easy to Load and Unload

Durability guaranteed.

Complete catalogue on request. Mention this paper and address in full.

SYCAMORE WAGON WORKS, 109 Edwards St., Sycamore, Ill.

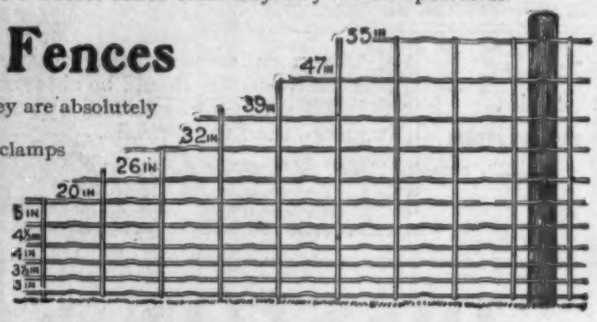
For a Bigger Fence Business

It is absolutely necessary that you handle a better fence than any of your competitors.

"Pittsburgh Perfect" Fences

are so far ahead of any other on the market that they are absolutely without competition.

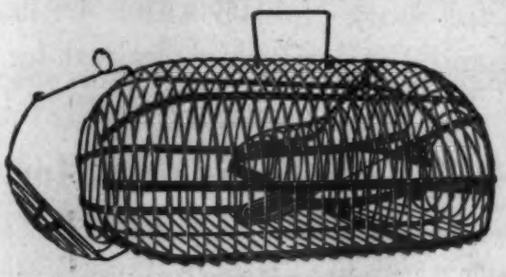
This fence is **Electrically Welded**—it has no wraps or clamps to hold moisture and **cannot rust.** It is the strongest fence made and will curb the most powerful beasts. It can be adjusted to uneven ground—as a perfect fence it is in a class by itself.



WRITE US FOR PARTICULARS TODAY

PITTSBURGH STEEL CO., Pittsburgh, Pa.

We Make More Rat Traps Than Any Other Makers in the World.



ALL LOCKED RIBBED

Five Sizes. Steel Wire and Ribs. Patent Flange, Safety Doors. All Traps Lacquered. Rust Proof. Traps always set. Rats cannot escape when in the Trap. Strongest, best made, most salable Traps in the Market.

WRITE FOR 1909 CATALOGUE

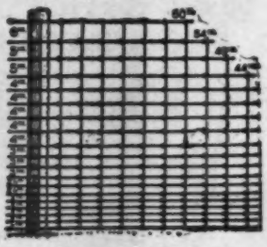
We make all kinds of Brushes and Wire Goods. Started in 1819 and still at it. GET OUR PRICES.

THE BROMWELL BRUSH AND WIRE GOODS CO., CINCINNATI, OHIO.

Shelf Boxes,
Hardware Shelving,
Counters,
Screw, Bolt and
Seed Cases,
Store Ladders,
Glass Cutting Boards,
Immediate Shipments,
Send for Booklet.

W. B. HELLER & CO.,
MONTPELIER,
OHIO

The Denning Fence



¶ Is the Fence that pleases your customer. It is made on scientific and practical principles. It is made in various sizes, weights and meshes, for stock, hogs, poultry and rabbits.

Write for catalogue and prices on Lawn and Cemetery Fencing, Gates, Barb Wire, Nails, Staples, Portable Corn Cribs and Grain Bins.

The Denning Wire & Fence Co., Cedar Rapids, Iowa.

We Manufacture 12 and 14 Mesh

ALUMINOID

in all widths made of 33 wire.

Heavy in 28 wire.

SEND FOR SAMPLES.

NATIONAL WIRE CLOTH CO., Niles, Mich.

— SHELVING —
WARREN SYSTEM
SELF PAYING
HARDWARE STORE EQUIPMENT
IN INTERCHANGEABLE SECTIONS
& SCREW, BOLT & GUN CASES.
J. D. WARREN MFG. CO. CHICAGO U.S.A.

Why Carry Bolts and Screws

Unless your stock of these be supplemented with Star Expansion Shields to fit?

All Styles and Sizes

From a No. 5 Screw Upward

Write For Catalog and Samples Which Are Free

STAR EXPANSION BOLT CO., :: 147 Cedar St., NEW YORK, N. Y.

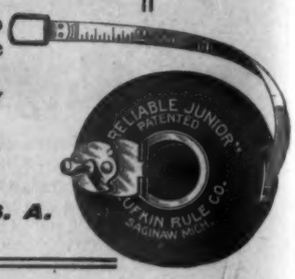
LUFKIN

Measuring Tapes

are made in every conceivable variety, to suit every purse and purpose, but all of the same superior quality.

¶ Our extensive advertising creates a demand, that every progressive dealer should be able to satisfy.

¶ It takes but a minute and a postal to ask for our catalog—it's more than worth while.



Please Mention THE AMERICAN ARTISAN

THE LUFKIN RULE CO. Saginaw, Mich., U. S. A.
New York London, Eng. Windsor, Ont.

DISSTON SAWS

Run Easiest
Cut Fastest
Last Longest

To the practical Saw User this tells the full story of HIGHEST PERFECTION in Material, Temper, Design and Workmanship attained for the DISSTON BRAND OF SAWS.

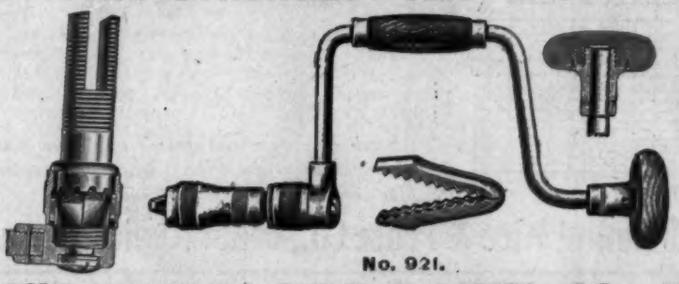
HENRY DISSTON & SONS, Inc.

Keystone Saw, Tool, Steel and File Works

PHILADELPHIA, PA.

STANLEY CONCEALED RATCHET BRACES

THE STRONGEST AND BEST RATCHET BRACE MADE.



No. 921.

FOR DESCRIPTION OF FULL LINE OF BRACES AND OTHER HIGH GRADE CARPENTERS' TOOLS.

WRITE FOR CATALOGUE No. 34

THE STANLEY RULE & LEVEL CO., New Britain, Conn., U. S. A.

Show This to Your Trade,

IT WILL SELL AND SELL READILY.

COMBINATION PIPE AND NUT WRENCH

A Strong and Serviceable Combination, which takes the place of two tools

No. 45 BRIGHT, WITH LONG NUT.

The Head, Bar and Shank—one-piece steel forging. Made of the best materials—the parts are interchangeable. Write for Catalog of Wrenches of all Descriptions.

TRADE B&C MARK

BEMIS & CALL HARDWARE & TOOL CO., Springfield, Mass.

NAILS THAT NEVER RUST

KEYSTONE BRAND GALVANIZED NAILS

CUT OR WIRE

Evenly Coated Perfectly Separated

KEYSTONE NAIL CO., Pittsburgh, Pa.

Send for Catalogue and Prices.

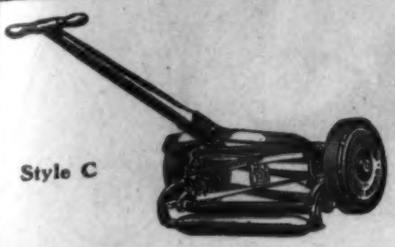
The easiest selling Mower on the market. Send for circular.

The Clipper

The modern Mower demanded by the trade.

Clipper Lawn Mower Co.
DIXON, ILL.
Manufacturer of Hand and Pony Mowers and Marine Gasoline Engines

The Genuine
Philadelphia
Lawn Mowers



Style C

Style A

Recognized as

Standard Mowers **The World Over**

They are guaranteed against imperfections and warranted to give entire satisfaction.

Be sure you handle the lawn mowers with the words PHILADELPHIA LAWN MOWER CO. cast on the wheels. They are the mowers that will entirely satisfy your customers.

The Philadelphia Lawn Mower Co.

3101 to 3109 Chestnut Street PHILADELPHIA, PA., U. S. A.

Style E

Send for CIRCULARS and PRICES

Simple in construction, light running, durable. The best Hand and Horse Mowers on the market.

Style K

The QUEEN WASHER

YOUR BUSINESS

DEMANDS that you secure the *Sole Agency* of this washer

It has the merit to make Large Sales for you and offers an opportunity you should not neglect. WRITE TODAY.

Sold to Jobbers only for specified territory.

JAS. H. KNOLL, - - Reading, Pa.

Washing Machines
Are Staple—
They are good
Things to use
Which makes
Them good
To sell—
That is if
They are
Reliable
Machines.

The White Line
Of Washing
Machines are
Reliable—
Fully guaranteed—
Safe to buy—
And safe
To sell.
Do you
Handle
Them?

White Lily Mfg. Co.
1500 Rockingham Road, Davenport, Iowa.

Bishop's Quick Working Forms

THE WORK

for closing end of Eave Trough in corrugations, as shown herewith.

You can close an end much quicker, easier and cheaper than in any other way. When you cut a trough, you can put an end in both parts, thus making no waste.

The form will not burst the end out. You can close old work from a ladder.

The form is made in five sizes, 2½, 4, 4½, 5 and 6. For sale by jobbers or tinning specialty houses.

BISHOP HARDWARE COMPANY,
Dowagiac, Michigan.

It's all in Our dasher

THE SANITARY FREEZER IN USE IN LEADING HOSPITALS

The Original ALL METAL
"POLAR STAR"

No Other "Just As Good" and They Can't Make 'Em Better.

Best materials procurable enter into their construction.
They are purposefully correct.
They are the most inexpensive good articles of their kind on the market.
They allow a good margin of profit to jobber and dealer.
The consumer gets his money's worth—and more.

Write for Full Descriptions and Prices.

Smith & Hemenway Co.
108-110 Duane Street, NEW YORK, N. Y.

Where Successful business men have advertised is pretty safe to advertise.

Can't wait when cherries are ripe—must have the right machine, *quick*

Too late, then, to stock up. Better drop a line to your jobber *to-day*

Wherever cherries grow women who know, and 'most all of them do, will want

an "ENTERPRISE"

Cherry Stoner

If you have mislaid that latest red-covered catalogue of ours, write for another copy. No hardware store is fully equipped for business without it.

Also makers of the famous "Enterprise" Meat and Food Choppers; Rapid Grinding and Pulverizing Mills; Sausage Stuffers and Lard Presses; Fruit Wine and Jelly Presses; Bone, Shell and Corn Mills; Cold Handle Sad Irons, Etc.

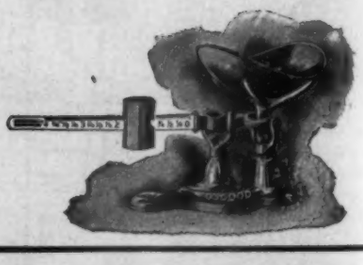
The Enterprise Mfg. Co. of Pa., Philadelphia, U. S. A.

21 Murray Street, New York — 438 Market Street, San Francisco

Osgood Scale Company

U. S. STANDARD — Binghamton, N. Y.

ALL KINDS



"SURE CUT" CAN OPENER

PATENTED 7, 19, '04

TWO CUTTERS
ONE FOR ROUND CANS
ONE FOR SQUARE CANS
Retails for 10 cents

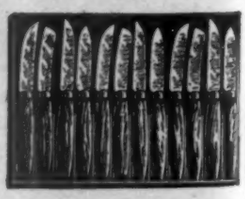
5—Grades
CLEAVER AND TENDERER.

ICE CHISELS
Six Styles.

We manufacture a large line of Bread, Butcher, Carving and Paring Knives, Can Openers, Family Cleavers, Shoe and Putty Knives, Wall Scrapers, etc.

Write for Prices.

IRA F. WHITE & SON CO.
NEWARK, N. J.



Kitchen Knives

THAT PAPER IS THE CHEAPEST WHICH BRINGS THE BEST RESULTS IN PROPORTION TO ITS RATE, NO MATTER WHAT THAT RATE MAY BE.

We Do Not Sell Nails

But the volume of our hardware business is almost without an equal in the world.

If our hardware business—sample floors and all—was to be centralized in one place—there are not many buildings in America large enough to hold it.

And yet we are not exclusively a hardware house. Nor do we carry the heavy no profit lines.

Perhaps the reason for our bigness lies in the fact that we have one price for all—and that our printed price—with no discounts.

If you have not seen our new latest catalogue, ask for number N718.

BUTLER BROTHERS

Exclusive Wholesalers of General Merchandise

NEW YORK CHICAGO ST. LOUIS MINNEAPOLIS

Sample Houses—Baltimore, Omaha, Dallas, San Francisco, Seattle

BECAUSE

HE HAS

DELTA FILES

WITH

CLEAN STRONG SHARP TEETH

Backed With Honest Material

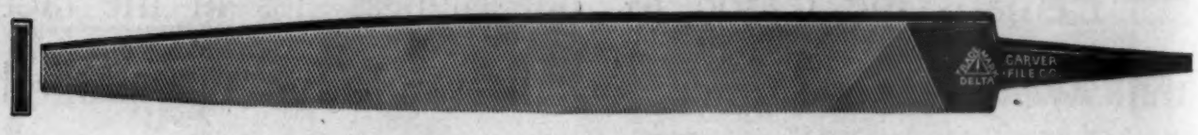
TRADE MARK

DELTA

FILES OF QUALITY

We can show you that DELTA FILES cut quicker and last longer than any others. Ask your dealer for Delta Files and be convinced.

FILES OF QUALITY



The Highest Grade File Made

The File You Will Eventually Use

DELTA FILE WORKS

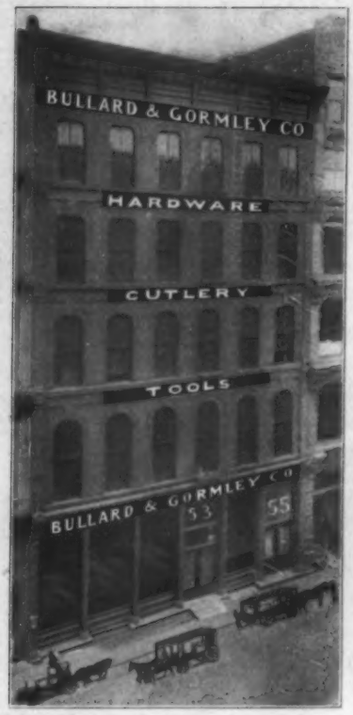
Philadelphia, Pa. U. S. A.

CARVER FILE COMPANY, Proprietors

We are an independent organization not connected with the trust in any form, shape or manner

New Location

41-43 State Street



53-55 Lake Street
Through to 54-56 Couch Place

¶ With our increased facilities and larger quarters we are better able than ever to take care of the wants of the trade

Bullard & Gormley Company

WHOLESALE HARDWARE

CUTLERY AND TOOLS, GUNS, AMMUNITION, FISHING TACKLE, SPORTING GOODS, ETC.

41-43 State Street 53-55 Lake Street

54-56 Couch Place

CHICAGO, ILL.

Champion Triple Action Ice Cream Freezer

WHAT IT IS The **"Champion" Freezer** is especially adapted for Household Use. Its principles of construction, beside being absolutely New, are entirely Different, Novel and Better than any of the new style of household freezers placed on the market during the past few seasons. Besides being better, you can guarantee the **"Champion"** to your customers as being durable.

WHAT IT IS CONSTRUCTED OF The Outside Tub is made of best galvanized iron. The dasher is made of malleable iron, heavily tinned, with a Wood Scraper, which prevents the cream from adhering to the sides of the freezing can while in process of freezing. The Cylinder or Freezing Can is made from block tin (re-tinned.)

WHAT IT WILL DO We know that if you sell freezers, and wish to handle one that will give your trade satisfaction, and do all that the manufacturers claim it will do; that you can sell at about one-half the price of any of the old style freezers (besides giving you a liberal profit) and a freezer that will make the finest Ice Cream, Sherbets and Frozen Desserts in a few minutes, our **"Champion" Freezer** is the one for you to handle.

Made in Four Sizes

1 Quart	each, $1.00
2 Quarts	each, 1.25
3 Quarts	each, 1.50
4 Quarts	each, 1.75

17-19 Ninth St. REID-EDELMUTH MFG. CO. Brooklyn, N. Y.

FREEZERS

"LIGHTNING"

THAT EXCEL IN
Easy Running
Quick Freezing
Economy
Convenience
Practical Results

THAT ARE
Well Advertised
In Demand
Easily Sold
Satisfactory in Use
Of Known Reputation

"BLIZZARD"

THE "BEST MADE" because in practical use, they are convenient, compact in size, use smallest amount of ice and salt, run easily, freeze quickly, produce smoothly frozen creams or desserts with little bother and less work. We make also

MACHINE FREEZERS AND ICE BREAKERS

Sold by Leading Jobbers Catalog Sent Free

NORTH BROS. MFG. CO., Philadelphia

PELOUZE Improved Family Scales

with Extra Large Dial—New Artistic Base

They can be instantly adjusted for plate, basket or scoop.

CAPACITY
24 pounds by ounces

No. E90 Steel Platform
No. 90½ Tile Platform

The Pelouze Scales are invaluable to proper cooking, indispensable in preserving. They keep check on your purchases. Soon pay for themselves. No weights to get lost. Absolutely automatic. These *Scales* are beautifully finished in black enamel and are artistically ornamented. Extra Large Dial with silver center and gold border. Very attractive. Made of cold rolled steel.

No. T95 Tin Scoop
No. S95 Brass Scoop

Dealers should specify PELOUZE Scales in ordering from their jobber. Send for Catalog K." 40 Styles Counter, Market, Postal and Confectionery Scales, Spring Balances, etc.

PELOUZE SCALE & MFG. CO.
405-413 Ohio Street, CHICAGO

Stand In With The Housekeepers

Give them the Jack Frost Ice Cream Freezer and watch them go to making ice cream in their homes.

If you would like to see something doing in the freezer trade this season put in a stock of

JACK FROST
Multiple Motion
Ice Cream Freezers

They are the freezers for family trade.
They will do their own advertising when they get started.
They make ice cream making easy.
Easy turning, quick work, the least ice, and no danger of spoiling the cream with oil or salt water.
Let us send you catalog No. 85 with terms and particulars.

STURGES & BURN MFG. CO.
FACTORY Harrison, Green and Peoria Sts. CHICAGO, ILL. OFFICE 235 South Green Street

"Dime" Screen Door Check

Stops the slamming of the **Screen Door**

Sold at all Hardware Stores.

Send for circular and ask for prices.

By mail, 12 cts.

CALDWELL MFG. COMPANY
41 Jones St., Rochester, N. Y.

CUT THIS OUT

To the Publishers
The American Artisan and Hardware Record
355 Dearborn Street, CHICAGO

Please send us THE AMERICAN ARTISAN each week for three months. At the end of that time we will remit Two Dollars for one year's subscription, or 50 cents in case we decide to discontinue.

NAME .....

ADDRESS .....

TOWN .....

STATE .....

AUTOMATIC SANITARY ICE CREAM FREEZER

The only FREEZER of its kind on the market.

A Time Saver, A Labor Saver, A Salt and Ice Saver

DELICIOUS CREAM CAN BE FROZEN IN THIS FREEZER IN FIVE MINUTES

It has no dasher, crank or gears to get out of order. Its cylinder is rust-proof and absolutely sanitary being made of white enameled steel; inside cover of aluminum. One two, three or four flavors can be frozen at one time as the Freezer is made with 1, 2, 3 or 4 cylinders of 1 to 4 quarts capacity each.

WITH THE USE OF A SPECIAL CAN IN ADDITION THIS FREEZER BECOMES A FIRST CLASS CHURN. :: Send for complete descriptive matter and prices.

THE NEW ENGLAND ENAMELING CO.

MIDDLETOWN and PORTLAND, CONN.

H. GINSBURG, Sales Agent, :: 736 Broadway, NEW YORK.

THE

WONDER Double Motion Ice Cream FREEZER

The Fastest Growing Freezer in the World

KEEN KUTTER

A "Down-to-Date" Freezer

Fine Smooth Cream in FIVE MINUTES.
Gear Frame Hinged and COVERED.
Cans and all important parts HEAVILY TINNED.
Self-adjusting Double Scraper; this HASTENS FREEZING.
In Freezing Fruit Ices Can may be REVOLVED WITHOUT DASHER.
White Pine Tubs—Strong, Reliable; ABSOLUTELY WATER-PROOF.

Mr. Dealer:
We will send FREE, upon request, ONE SET OF WONDER CREPE PAPER DOILIES.
Address your request to Division No. 5.

SEE OUR SALESMAN OR WRITE US FOR PRICES.

SIMMONS HARDWARE CO.
INCORPORATED
Manufacturers and Distributers
SAINT LOUIS NEW YORK

THE ELLIOTT

THE LINE WITH CLASS

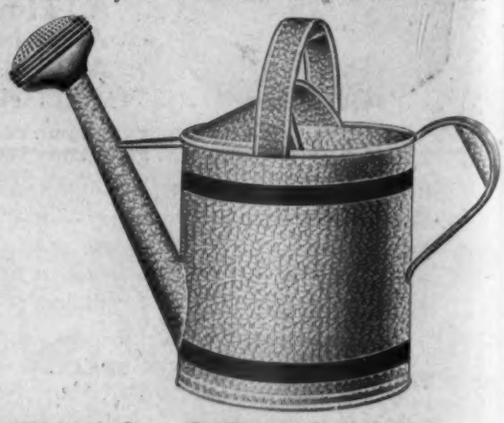
ELLIOTT PATENTED FEB. 17, 1903.

Mr. Hardware Merchant: We wish you to know the merits of the Elliott Anti-rusting Cream Cans with outside vacuum covers. Can be submerged in water tanks, keeping the milk and cream pure and sweet.

Sold under a positive guarantee against rusting out.

Every can guaranteed to be extra prime plate, first-class workmanship and of heavy stock and made under our own patent anti-rust process.

Manufactured and warranted by the



ELLIOTT MANUFACTURING COMPANY

Makers of Good Goods Only **WARREN, ILLINOIS**

Let us tell you about our Celebrated Sprinklers. Positively the most satisfactory sprinkler on the market.

AGATE NICKEL-STEEL WARE

AGATE L&G Mfg. Co. NICKEL-STEEL WARE

is absolutely free from poisonous substance, is made by careful, experienced men, by a company founded in 1850. The first enameled ware and blue and white ware made in this country was made in our mills. We know how to make enameled ware safe and durable. We make it safe and durable because we are proud of the trade-mark.

Look for the blue label.

Lalance & Grosjean Mfg. Company

Chicago New York Boston

"Atlantic"

Austrian Export Enameled Ware

Turquoise Blue Outside with

Absolute Acid-Resisting White Lining

Our splendid factory organization, modern equipment, personal supervision and exclusive processes guarantee a beauty of finish and superiority of quality second to none.

Complete stock on hand.

Prompt shipments guaranteed.

Every Article Warranted

Catalogue and Price List furnished on request.

The Atlantic Stamping Company

Rochester, N. Y., U. S. A.

MAY 3 1909 ONE COPY RECEIVED

THE STEWART BRANDS

STEWART—AUSTRIAN—EXPORT

STEWART—ROZWOOD
STEWART—DECORATED

STEWART—TURQUOISE
STEWART—BLUE—MARBLEIZED

ENAMELED WARE

STEWART—DECORATED
Pure White—Decorated in colors—Blended in a delicate Blue—Pleasing designs, Guaranteed Quality.

Only three and four coated white lined wares.

STEWART—AUSTRIAN—EXPORT
A beautiful solid blue ware of unquestioned quality—Correct shapes — Pleasing color—Acid resisting white—Made by exclusive processes—Guaranteed unconditionally. Equal in quality, superior in finish to the best imported wares.

The Stewart Stamping Company was organized nearly two years ago with the idea of making a better grade of enameled ware than has ever been produced in this country. The success of the organization is evidenced by the fact that they have almost completed and will soon add to their present extensive plant another large factory, doubling their capacity.

Our splendid factory organization, modern equipment, personal supervision, and exclusive processes, guarantee a beauty and elasticity of finish and a superiority of quality over that usually attained by the American manufacturer. Send for catalog.

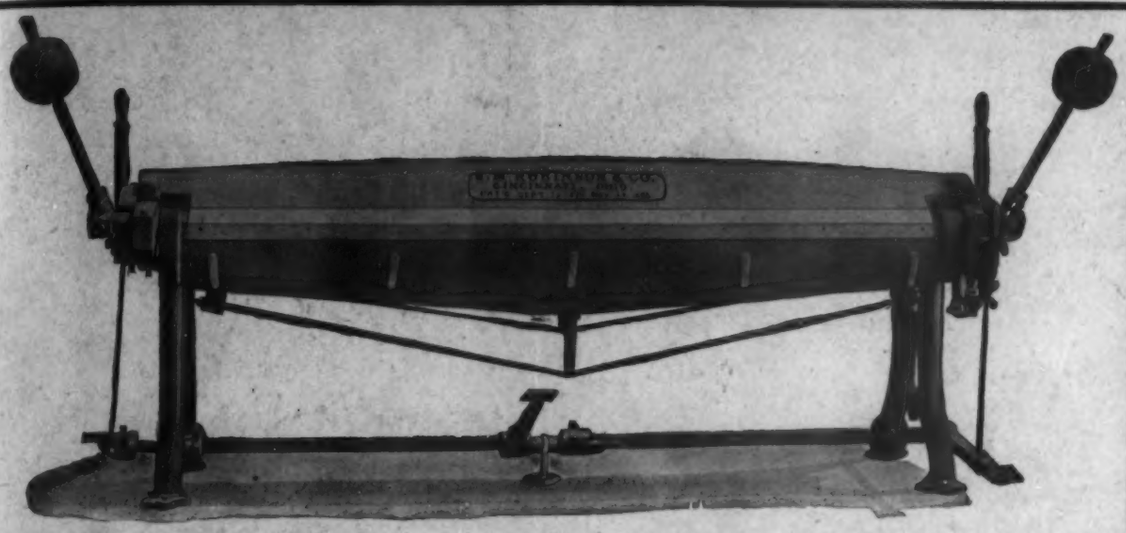
STEWART—ROZWOOD
Blended in rich shades of Brown. Original in design, Artistic in finish. Guaranteed quality.

Quality is the first consideration.

STEWART—BLUE—MARBLEIZED
Clean cut marbleizing—Neat workmanship.

THE STEWART STAMPING COMPANY

MOUNDSVILLE, WEST VIRGINIA.



The above cut shows the general design of our Cornice Brake. These Machines are guaranteed for No. 20 Gauge material and lighter, and with Heavy Bending Attachment for No. 18 Gauge. With each brake is furnished 2½-inch, 2-inch, 1½-inch and 1¼-inch wood formers, and 1-inch, ⅞-inch and ¾-inch iron forms, also friction clamps for holding same. All machines are fitted with foot treadles, quadrant gauge and three quadrant stops.

WRITE FOR CIRCULAR.

The J. M. Robinson Mfg. Co.

SHEET METAL WORKING MACHINERY

Spring Grove Avenue **Cincinnati, Ohio**

Every Store Should Have One!

THE AMERICAN ARTISAN ADVERTISING MANUAL

Retail merchants are to-day doing more advertising than ever before. They are doing better advertising also. With a little assistance most retail dealers could prepare very effective advertisements. To supply this assistance is the mission of this volume.

It contains 278 pages and 228 illustrations of advertisements which have actually appeared in newspapers. It contains innumerable hints, suggestions and helps that every dealer will find valuable. It is brim full of information for those who prepare their own advertisements.

Every merchant should secure a copy. **The Price is $3.50 Per Copy.**

For Sale by your Bookseller or by

DANIEL STERN, Publisher, 355 Dearborn Street, Chicago, Ill.

"Standard" Rifles

HIGH POWER—REPEATING—HAMMERLESS
SELF-OPERATING or HAND-OPERATED

Unquestionably the **Rifle of To-day**; and so far in advance of any rifle now on the market that it will be the **Rifle of to-morrow** for a long time to come. "Standard" Rifles will be

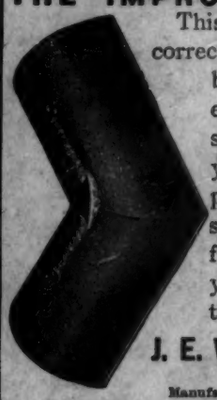
READY ABOUT JULY 1st.

Any up-to-date jobber will have them after that date. You can't afford **not** to see them—you can't afford **not** to sell them. So keep in close touch with your jobber—and write to-day for advance catalog to:

STANDARD ARMS COMPANY, 133 F. St., Wilmington, Del., U.S.A.

PER. NOT ENT'D

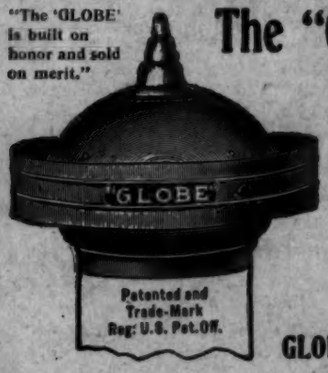
THE IMPROVED ONE-PIECE MITER



This miter is made absolutely correct, true to shape, size and bead, and has the easiest connecting slip joint. Will save your time and temper. In case your supply house cannot furnish them send your order direct to the

J. E. WHITACRE MFG. CO.
ROCKFORD, ILL.
Manufacturers of Sheet Metal Specialties.

"The 'GLOBE' is built on honor and sold on merit."



The "GLOBE" Ventilator

in COPPER, GALVANIZED IRON and with Glass Tops for Sky-light purposes.

ABSOLUTELY STORM PROOF
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